

Appendix 1A

SUSTAINABLE TRANSPORT
STRATEGY





Norfolk County Council

NORWICH WESTERN LINK

Sustainable Transport Strategy





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Sustainable Transport Strategy

TYPE OF DOCUMENT (VERSION 3.6) PUBLIC

PROJECT NO. 70041922

OUR REF. NO. 70041922-WSP-NWL-STS-001

DATE: JUNE 2021

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QUALITY CONTROL

Issue/revision	Revision 1	Revision 2	Revision 3.55	Revision 3.6
Remarks	Working Draft	OBC Draft	NCC comments	DfT comments
Date	January 2021	February 2021	March 2021	June 2021
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Project number	70041922			
Report number	70041922-WSP-NWL-STS-001			
File reference				

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LOCAL ACCESS CONSULTATION BROCHURE & REPORT

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SUSTAINABLE TRANSPORT STAKEHOLDER WORKSHOPS NOTES & SLIDES

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WCHAR STRATEGY PLAN

ACRONYMS

AADT	Annual Average Daily Traffic
ATC	Automatic Traffic Count
BR	Bridleway
CO ₂ e	Carbon Dioxide equivalent
DfT	Department for Transport
DM	Do Minimum Scenario
DS	Do Something Scenario
EAST	Early Appraisal Sifting Tool
EqIA	Equality Impact Assessment
FP	Footpath
GIS	Geographical Information System
HE	Highways England
JtW	Journey to Work
LLG	Local Liaison Group
LTN	Local Transport Note
MCC	Manual Classified Count
MP	Member of Parliament
NATS	Norwich Area Transport Strategy Model
NCC	Norfolk County Council
NCN	National Cycle Network
NDR	Norwich Northern Distributor Road (now the Broadland Northway)
NMU	Non-Motorised User
NUUH	Norfolk & Norwich University Hospital
NRP	Norwich Research Park



NTS	National Travel Survey
NWL	Norwich Western Link
NWQ	Norwich Western Quadrant
OAR	Options Assessment Report
OBC	Outline Business Case
ONS	Office for National Statistics
OSR	Option Selection Report
PCT	Propensity to Cycle Tool
P&R	Park and Ride
PROW	Public Rights of Way
SAC	Special Area of Conservation
SOBC	Strategic Outline Business Case
STS	Sustainable Transport Strategy
TCF	Transforming Cities Fund
TfN	Transport for Norwich
ToR	Terms of Reference
TRO	Traffic Regulation Order
UEA	University of East Anglia
WCHAR	Walking, Cycling & Horse Riding Assessment Report
WCHR	Walking, Cycling and Horse Riding (Highways England Assessment)

EXECUTIVE SUMMARY

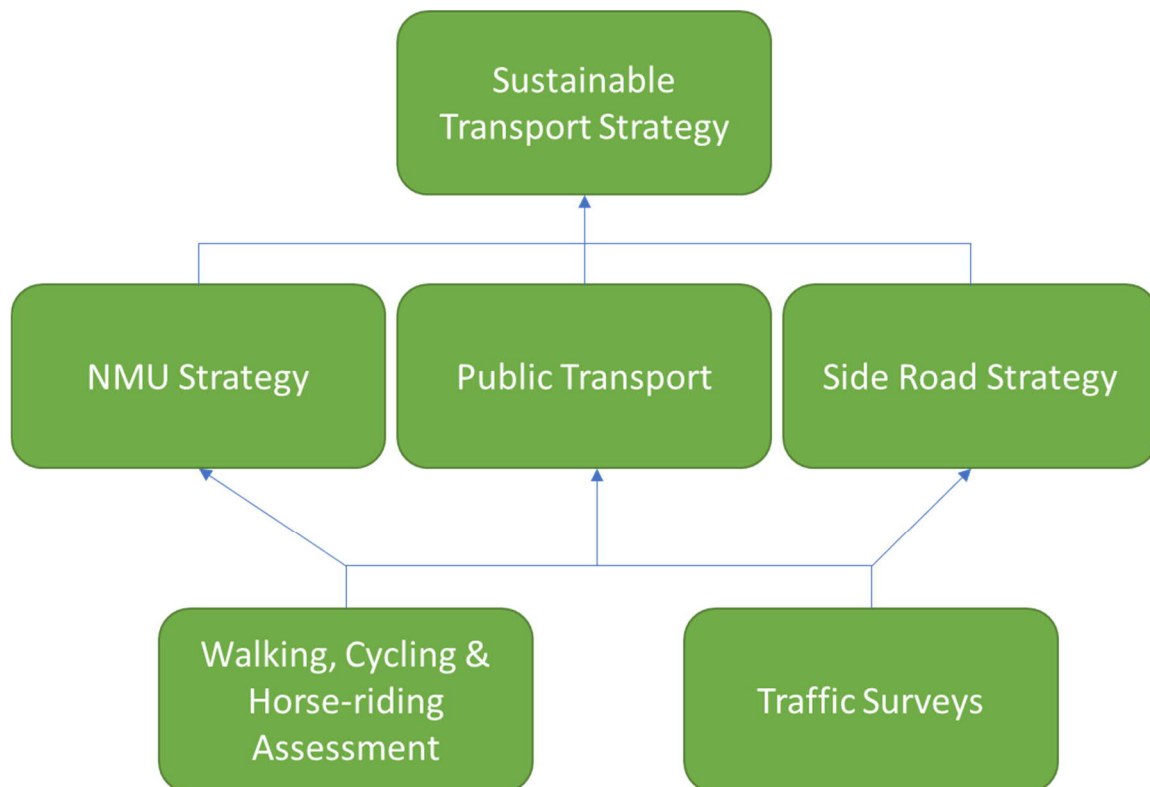
WSP have been commissioned by Norfolk County Council (NCC) to prepare a Sustainable Transport Strategy to support the Outline Business Case for a proposed link road to the west of Norwich, known as the Norwich Western Link (NWL).

The NWL will be approximately 3.9 miles in length and will include provision of sustainable transport measures. It will provide an alternative access route for vehicles travelling into Norwich and surrounding settlements, connecting the A47 with A1067 and A1270 Broadland Northway improving travel for orbital movements and preventing strategic traffic using minor rural roads that exist in the west of Norwich.

It is predicted that the majority of existing strategic traffic will re-route and alter their existing journey patterns to use the new road once built. A strategic transport model has been used to predict future travel patterns with and without the proposed Norwich Western Link and this work is described in the Outline Business Case for the scheme.

The Sustainable Transport Strategy (STS) is an overarching document that provides a framework for complementing the transport effects of the scheme. It includes the additional strategies being developed in tandem, namely the Non-Motorised User Strategy, Public Transport (Bus) Strategy, and Side Road Strategy and was informed by a Walking, Cycling and Horse Riding Assessment (prepared in accordance with DMRB Guidance GG142).

The scope of the STS covers the items as shown in the diagram below, with the detail of each component provided in appendices of this report which summarises the overall package:



A Traffic Management Strategy is also being developed separately as part of the Transport Assessment which will form part of the planning application submission and will also be considered as part of the pre-application public consultation planned for autumn 2021, with designs fixed for the planning application to be submitted in early 2022.

The NWL Project Team are working closely with Highways England, seeking to achieve a joined-up strategy that assists with minimising and mitigating potential severance issues associated with the Norwich Western Link Scheme and the A47 North Tuddenham to Easton improvement scheme.

OVERVIEW OF PROPOSED INTERVENTIONS

This STS has been developed alongside the main NWL highway design proposals and presents a range of measures within an appropriate radius of the new road. The measures provide a complementary package of interventions to support the sustainable travel objectives of the NWL. The proposals also fit well with the aspirations of Transport for Norwich (TfN) which seeks a mode shift away from private cars and improvement in air quality. There are opportunities for geographical linkage where the NWL and TfN projects interface at the western fringe of Norwich. This offers good synergy with wider sustainable transport proposals across Norwich.

The package of measures would encourage mode shift away from private car use by providing the means to travel sustainably by cycle, on foot or by bus, as well as linking up the existing network of Public Rights of Way to maximise local connectivity for pedestrians, cyclists and equestrians. An Equalities Impact Assessment is being carried out at each stage of the project to ensure that the proposals do not discriminate against those with protected characteristics.

INPUT FROM STAKEHOLDERS AND LOCAL RESIDENTS

The Strategy has been shaped by public consultation and stakeholder liaison to generate a package of measures that will maximise benefit to local users. Further engagement events are to be held as the project continues to evolve prior to planning submission to ensure that the project is as publicly acceptable as possible and joined up with other initiatives and infrastructure proposals in the west of Norwich.

KEY BENEFITS

The complementary measures will provide enhanced access to the Public Rights of Way network, with the standard of routes improved and the existing fragmented network would be joined up. Routes would connect to the Broadland Northway at the northern end, and to routes crossing the A47 at the south, connecting the villages of Honingham, Ringland and Weston Longville; the Marriott's Way; Costessey Park & Ride; Norwich Research Park; Taverham; and Drayton.

The measures are forecast to increase the number of walking and cycling trips across the study area by making the routes attractive and safe for users, and logically placed to connect key amenities. The local roads across the wider area are also expected to receive levels of traffic reduction which would help to make walking and cycling on the carriageway more attractive (supported by additional speed management measures where appropriate).

A Bus Strategy has been produced to connect key residential and employment areas to the west of Norwich with those in the city centre. The Bus Strategy will complement other aspects of the STS and make use of routes that will experience lower traffic levels following construction of the NWL, making bus travel more attractive for use and improving journey time reliability. There is ongoing

collaboration with bus operators to ensure that the service would be competitive and operate at suitable frequency to be financially viable.

The Side Road Strategy has been developed under the umbrella of the STS to deter rat-running through local villages close to the scheme and protect residential amenity. This has been tested with local residents via a Local Access Consultation in July 2020 which indicated good levels of support for the closure of existing roads crossing the NWL, other than Ringland Lane.

Economic Benefits of the proposed STS have been assessed and this indicates that the scheme contributes towards encouraging more healthy and active lifestyles with monetised benefits of £8.9 million and a BCR in excess of 2.0 which indicates the STS offers High Value for Money.

There are also expected to be carbon savings from the proposed package of measures, due to an equivalent of 1.5 million vehicle kms in the opening year of 2025 following construction, making it more efficient to travel from / to the west of Norwich by non-car means. Over the 60-year appraisal period this would offer a financial benefit of approximately £600,000.

MEETING SCHEME OBJECTIVES

The Sustainable Transport Strategy contributes to meeting the objectives listed below and enables the NWL scheme to satisfy the full range of high level and strategic objectives:

- High Level Objectives
 - **H1** - Support sustainable economic growth;
 - **H2** - Improve the quality of life for local communities;
 - **H3** - Promote an improved environment; and
 - **H4** - Improve strategic connectivity with the national road network
- Specific Objectives
 - **S1** - Improve connectivity and journey times on key routes in Greater Norwich;
 - **S2** - Reduce the impact of traffic on people and places within the western area of Greater Norwich;
 - **S3** - Encourage and support walking, cycling and public transport use;
 - **S4** - Improve safety on and near the road network, especially for pedestrians and cyclists;
 - **S5** - Protect the natural and built environment, including the integrity of the River Wensum SAC; and
 - **S6** - To improve accessibility to key sites in Greater Norwich.

KEY RISKS

With increased traffic restrictions/lower speed limits, the proposed interventions may cause additional traffic redistribution which has yet to be modelled within the strategic transport model. However, since in most cases, the forecast link flows on the affected routes are already expected to be low, the magnitude of impact of associated redistribution in response to the STS package of interventions is unlikely to have a significant effect on the wider network.

Furthermore, the implications of LTN 1/20 guidance is relatively new and local authorities are still becoming accustomed to its application and whilst the guidance is relatively clearly defined for urban areas, there is scope for differing interpretations in respect of rural roads. As the study area is



predominantly rural, the project team is seeking guidance via Sustrans and Transport East on how this can be specifically applied to rural routes.

There is also a risk that as the measures are developed further the estimated costs could fluctuate. This is dealt with in the quantitative risk assessment included in the Outline Business Case.

NEXT STEPS

The measures within the Sustainable Transport Strategy will be subject to further development with input from key stakeholders, so that a suitable level of detail is available for planning submission.

The Transport Assessment will consider sensitivity testing for the NWL scheme with the final proposed set of mitigation measures and sustainable transport interventions included in the NATS model.

Further engagement with stakeholders and landowners will continue to inform the scheme development, including advice from Sustrans and other groups on the application of LTN 1/20 guidance to the rural context.

The costs of the NMU elements will be already included in the scheme tender price from the preferred contractor. However, additional work will be carried out to refine the costs of the STS measures as the detail is worked up moving forwards through the design process.

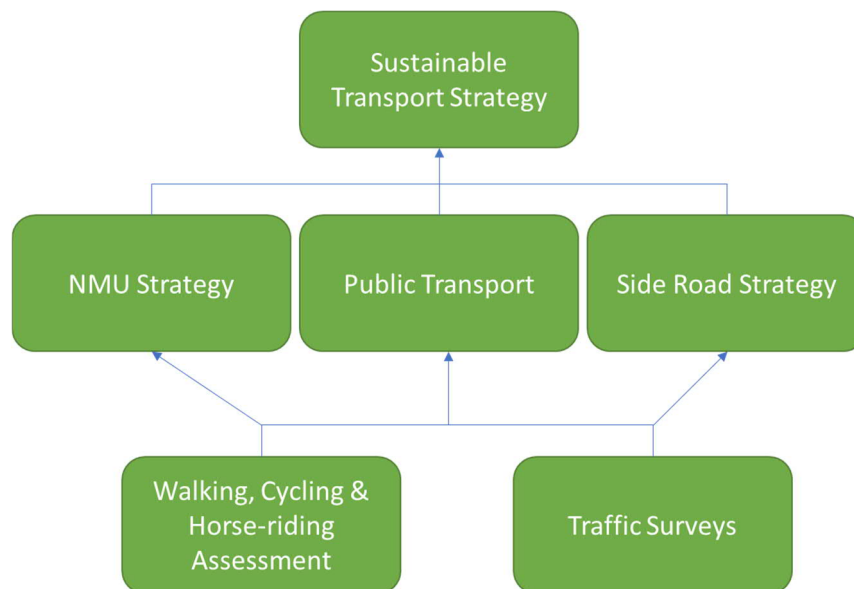
This document will be included as part of the OBC submission, but will continue to be updated and reviewed as the project develops, such as for planning purposes.

1 SUSTAINABLE TRANSPORT STRATEGY

1.1 INTRODUCTION

- 1.1.1. This Sustainable Transport Strategy (STS) has been developed on behalf of Norfolk County Council with the NWL design proposals and presents a range of measures in the immediate vicinity of the NWL and within a suitable radius of the new road at a more strategic level. The measures proposed will comprise a package of interventions to support the sustainable travel objectives of the NWL.
- 1.1.2. The STS is an umbrella term which encompasses a package local transport improvements which is proposed to support sustainable travel patterns within the study area west of Norwich once the Norwich Western Link is in place. The STS therefore contains several daughter documents in the appendices of this report explaining in more detail the proposed elements. The structure of the STS is shown in **Figure 1-1**.

Figure 1-1 - Sustainable Transport Strategy Elements



1.2 PROJECT OBJECTIVES

- 1.2.1. A range of project objectives have been developed to align with the current overarching themes presented in national, regional and local policy, as well as associated guidance. The objectives are in two tiers as high-level and specific local objectives, which have been discussed with stakeholders and are subject to ongoing refinement; the specific objectives are shown in **Table 1-1**.
- 1.2.2. The high-level objectives that the NWL will follow reflect issues and opportunities to support the principal aim of a modern and efficient transport system, which include:
- H1 - Support sustainable economic growth;
 - H2 - Improve the quality of life for local communities;
 - H3 - Promote an improved environment; and
 - H4 - Improve strategic connectivity with the national road network.
- 1.2.3. The Sustainable Transport Strategy seeks to address the non-highway orientated scheme objectives from the list below, as highlighted in green in **Table 1-1** below:

Table 1-1 – Norwich Western Link Specific Objectives

Specific Objective	Strategic Outcomes
S1 Improve connectivity and journey times on key routes in Greater Norwich	<ul style="list-style-type: none"> i) Improve journey time and journey time reliability, on routes through the area west of Norwich ii) Reduce congestion and delay through the area west of Norwich iii) Reassignment of traffic away from existing routes reducing delay and congestion improving existing accessibility. iv) Reduce emergency response times v) Improve network resilience vi) Provide a more-suitable direct route for HGV/LGV vehicles vii) Reduce trips on local minor roads for vehicular traffic
S2 Reduce the impacts of traffic on people and places within the western area of Greater Norwich	<ul style="list-style-type: none"> i) Reassignment of trips onto appropriate routes ii) Reduce noise in local communities overall in the western area of Greater Norwich iii) Reduce net emissions of CO2 and other greenhouse gases in local communities overall in the area west of Norwich iv) Improve Non-Motorised User connectivity v) Improve air quality, especially in the built-up areas of west Norwich vi) Minimise traffic impacts on local residents during construction
S3 Encourage and support walking, cycling and public transport use	<ul style="list-style-type: none"> i) Increase in number of trips taken by walking, cycling and public transport ii) Increased access to public transport, walking and cycling facilities
S4 Improve safety on and near the road network, especially for pedestrians and cyclists	<ul style="list-style-type: none"> i) Reduced overall network accident rate ii) Reduce the number of people killed or seriously injured on roads in the area west of Norwich. iii) Minimise highway safety impacts and severance during construction
S5 Protect the natural and built environment, including the integrity of the River Wensum SAC.	<ul style="list-style-type: none"> i) Biodiversity Net Gain ii) Minimised impact on landscape iii) Minimised impact on heritage iv) Not affect the integrity of the River Wensum SAC v) Reduce carbon emissions to contribute to the Council's net zero aspiration by 2030 vi) Minimise impact of the scheme on climate change vii) Minimise adverse environmental impacts arising from construction
S6 To improve accessibility to key sites in Greater Norwich	<ul style="list-style-type: none"> i) Improved accessibility to Norwich International Airport, Norfolk & Norwich University Hospital and key employment, housing and education sites i) Improved accessibility to green areas ii) Improved access to the cycle and Public Rights of Way network

1.3 DELIVERING A JOINED-UP STRATEGY

- 1.3.1. The Norwich Western Link not only connects the A47 with the A1067 and A1270 Broadland Northway to complete an orbital route for vehicles around Norwich, but also addresses gaps in the network to the west of Norwich for non-car users via this Sustainable Transport Strategy.
- 1.3.2. The selection of a preferred highway alignment was announced by NCC Cabinet in July 2019. The Option Selection Report included recommendations to develop a complementary package of supporting Sustainable Transport improvements to accompany the scheme as two previous rounds of public consultation had highlighted support for improving non-car means of access in the west of Norwich as well as a highway scheme.
- 1.3.3. In accordance with the DMRB guidance GG142, a WCHAR study was carried out to identify gaps in the network covering at least a 5km radius around the scheme and opportunities for enhancement of connectivity and accessibility for non-car users. This formed the starting point for the current strategy, which now includes measures within a wider, strategic study area. It noted that the existing Public Rights of Way network was sparse and fragmented and better connectivity to the Marriott's Way (part of the National Cycle Route Network) would be beneficial.
- 1.3.4. Key interfacing projects to the west of Norwich have also been recognised as part of the project and engagement with the delivery teams has been ongoing since 2019, seeking to maximise the synergy between the proposals being brought forward in parallel. These projects include the Highways England A47 North Tuddenham to Easton improvement scheme, the Food Enterprise Zone and Transport for Norwich.

1.4 TRANSFORMING CITIES FUND / TRANSPORT FOR NORWICH

- 1.4.1. NCC, in partnership with Norwich City Council, Broadland District Council and South Norfolk Council, have successfully made an application to the Department for Transport as part of the Transforming Cities Fund (TCF), securing £32 million funding to support new walking, cycling and public transport infrastructure and services be delivered through Transport for Norwich (TfN). The fund aims to make it easier for people to access jobs, education and retail, whilst also seeking to improve air quality.
- 1.4.2. Through the TCF programme, a number of highway and public transport service improvements are to be delivered over the period up to end March 2023. The Thickthorn Park and Ride (P&R) site is to be expanded to provide an additional circa 400 parking spaces and NCC is in discussion with Norwich Research Park to provide a new service to the site from Thickthorn P&R, which would be in addition to the existing service to the city centre.
- 1.4.3. The TCF programme is also seeking to extend the Beryl bike share scheme, which now provides electric bikes and scooters in addition to standard bikes, to the P&R sites across Norwich, which would provide greater flexibility in terms of transport choices for local people and visitors.
- 1.4.4. First Eastern Counties, who provide around 80% of the bus services in Greater Norwich, are also committing £18 million of investment in new buses, refurbished buses and increased service frequencies as part of the Transforming Cities programme.

2 PUBLIC AND KEY STAKEHOLDER ENGAGEMENT

2.1 ENGAGEMENT ACTIVITIES AND KEY STAKEHOLDERS

- 2.1.1. Stakeholder and local user group engagement has been a core part of the NWL project from conception, allowing for local residents, other interested parties and professionals to comment on proposals and provide local insights. The following engagement work has been undertaken to date as shown in **Table 2-1**.

Table 2-1 - Stakeholder Engagement Timeline

Date	Activity
February 2017 - onwards	Local Liaison Group Meetings with local Parish Councils
May - July 2018	Transport Issues Public Consultation
November 2018 - January 2019	Options Public Consultation
August 2019 - onwards	Working with HE for joined up delivery of the NWL and A47 North Tuddenham to Easton dualling scheme
October 2019	Sustainable Transport Stakeholder Workshop 1
January 2020	Sustainable Transport Stakeholder Workshop 2
July - September 2020	Local Access Public Consultation
August 2020	Sustainable Transport Stakeholder Workshop 3 - Briefing on content of Local Access Consultation
August 2020 - onwards	Joint Local Liaison Group meetings with both HE and NCC
February 2021	Local Liaison Group 23 February
March 2021	Sustainable Transport Stakeholder Workshop 4

- 2.1.2. Ad hoc meetings have also been held with parish councils, organisations, local user groups and NCC to discuss additional topics, outside of the planned events above.

2.2 TRANSPORT ISSUES PUBLIC CONSULTATION – SUMMER 2018

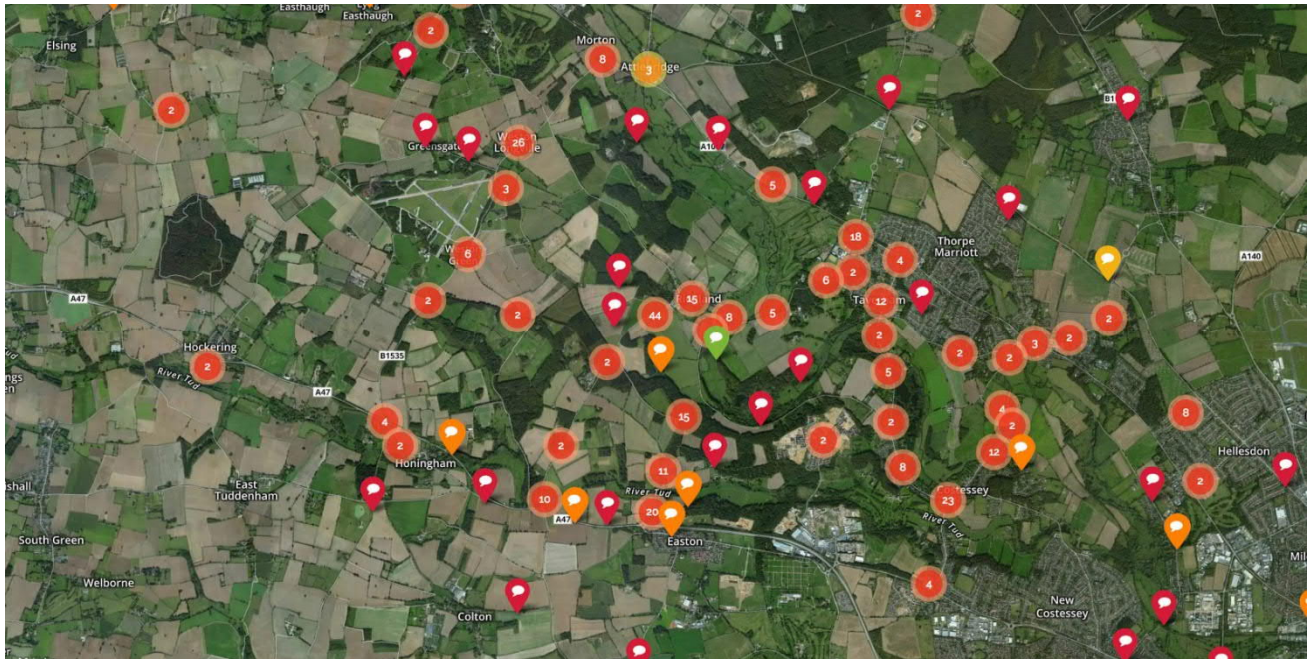
- 2.2.1. A first round of public consultation ran from May 2018 to July 2018, initiated by NCC as part of their non-statutory early engagement. More than 1,700 responses were received which demonstrated there was strong support for a new link road between the A1270 Broadland Northway and the A47 west of Norwich.
- 2.2.2. The consultation asked people for their views on any transport issues that exist to the west of Norwich. Of the 1,732 responses to the main consultation survey that were received, 773 comments pinned to the consultation map and 42 letters or emails highlighted problems in a specific location.
- 2.2.3. The following figures show where comments on grouped themes were pinned to maps of the local area through the consultation.

2.2.4. The plans show response icons with the following coloured symbology:

- Red - very negative;
- Orange - negative;
- Yellow - neutral;
- Light green - positive; and
- Dark Green - very positive.

(Note: the numbered orange circles show where there are comment location clusters)

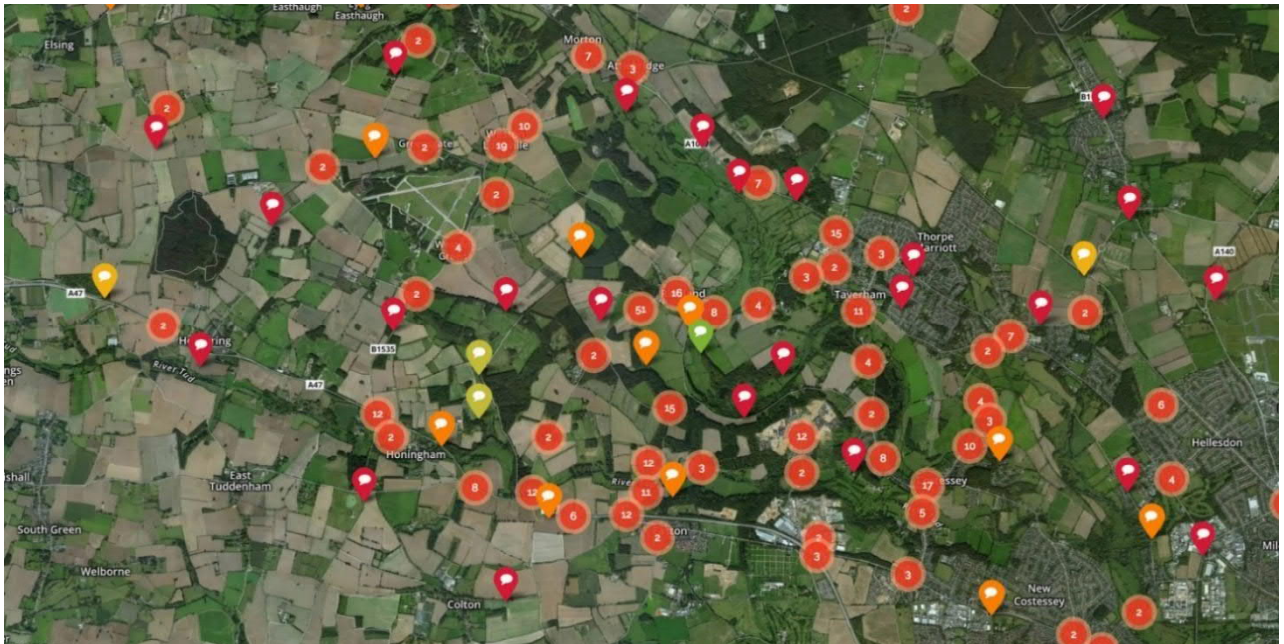
Figure 2-1 - Location tagged with 'rat-running'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

2.2.5. The above plan shows that rat running is perceived to be a problem within Costessey, Taverham, Ringland, Honingham and Weston Longville. Honingham Lane received 44 responses noting that the route experienced high levels of traffic and rat-running, with suggestions that a link between the A47 and Broadland Northway likely to be able to reduce this issue, creating opportunities to increase walking and cycling.

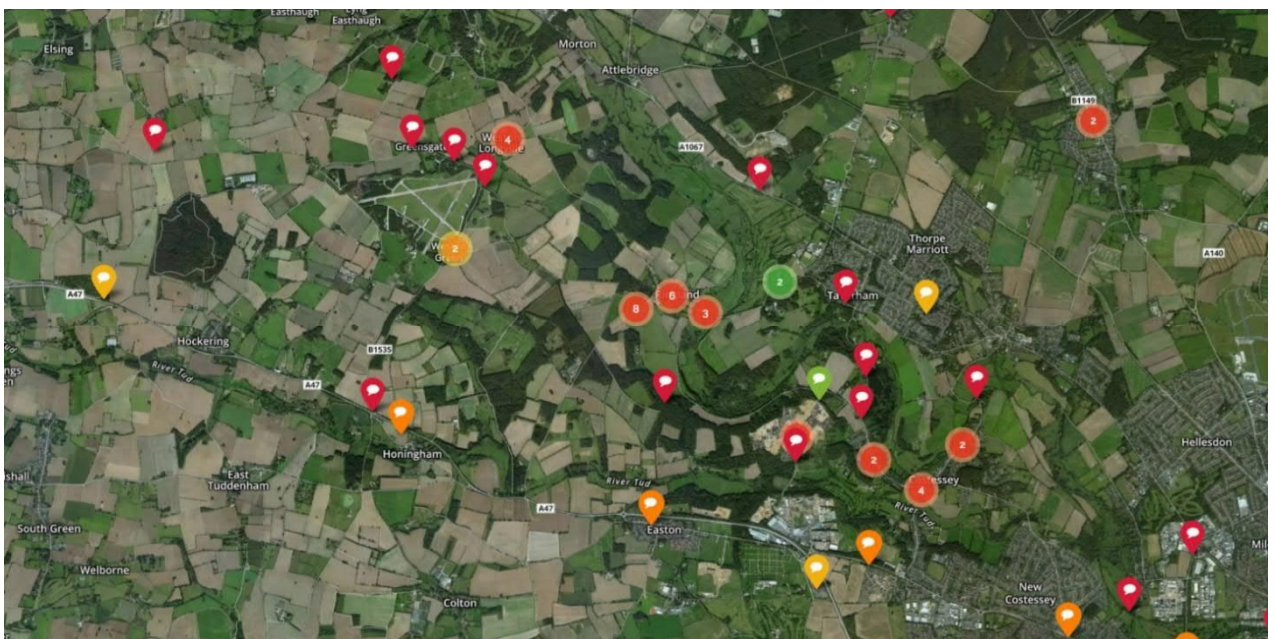
Figure 2-2 - Locations tagged with 'roads unsuitable for level of traffic'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

- 2.2.6. The above plan correlates with **Figure 2-1**, with comments suggesting that the areas of Honingham, Ringland, Weston Longville and Taverham have local roads experiencing traffic levels that are not considered by residents to be suitable for the current standard. Again, Honingham Lane, south of Ringland received the greatest number of responses (51), showing that respondents strongly believe the route receives more traffic than it should, with some respondents noting that this is anticipated to increase in the future.

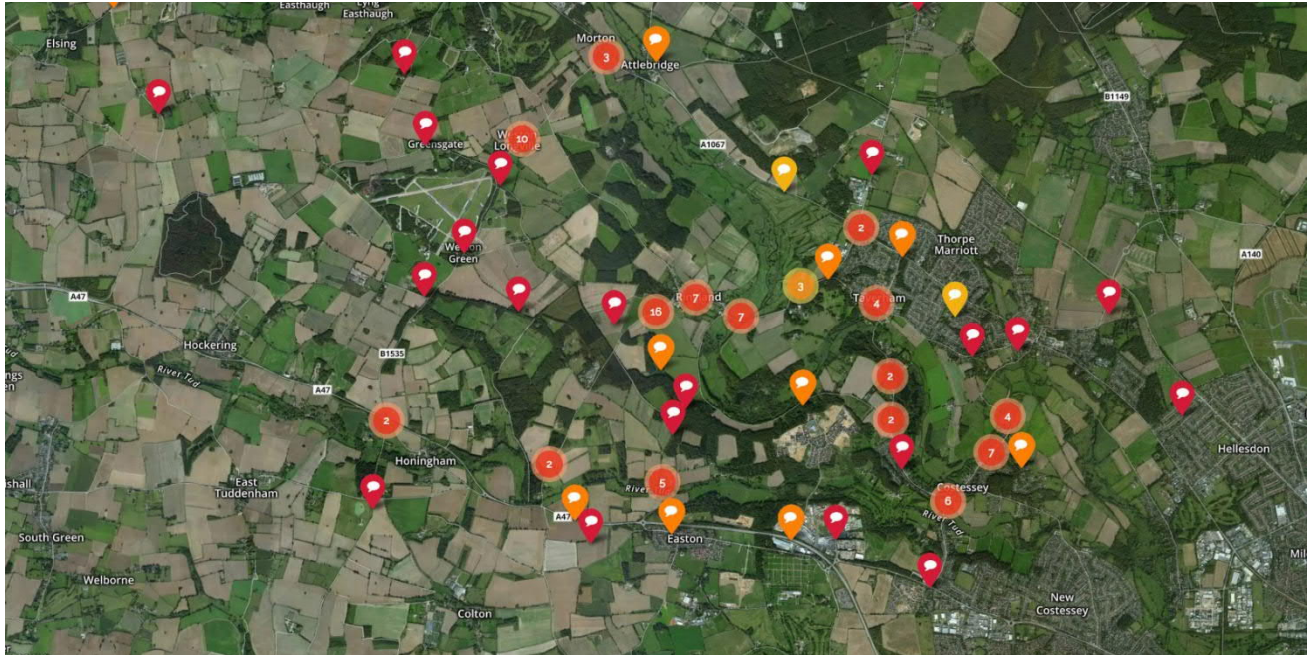
Figure 2-3 - Locations tagged with 'public transport options'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

2.2.7. **Figure 2-3** shows the areas where respondents have concerns relating to the existing public transport provision within the study area. The general view is that across the study area there is a negative opinion of existing provision, with services perceived to be lacking in Ringland, Weston Longville and Costessey.

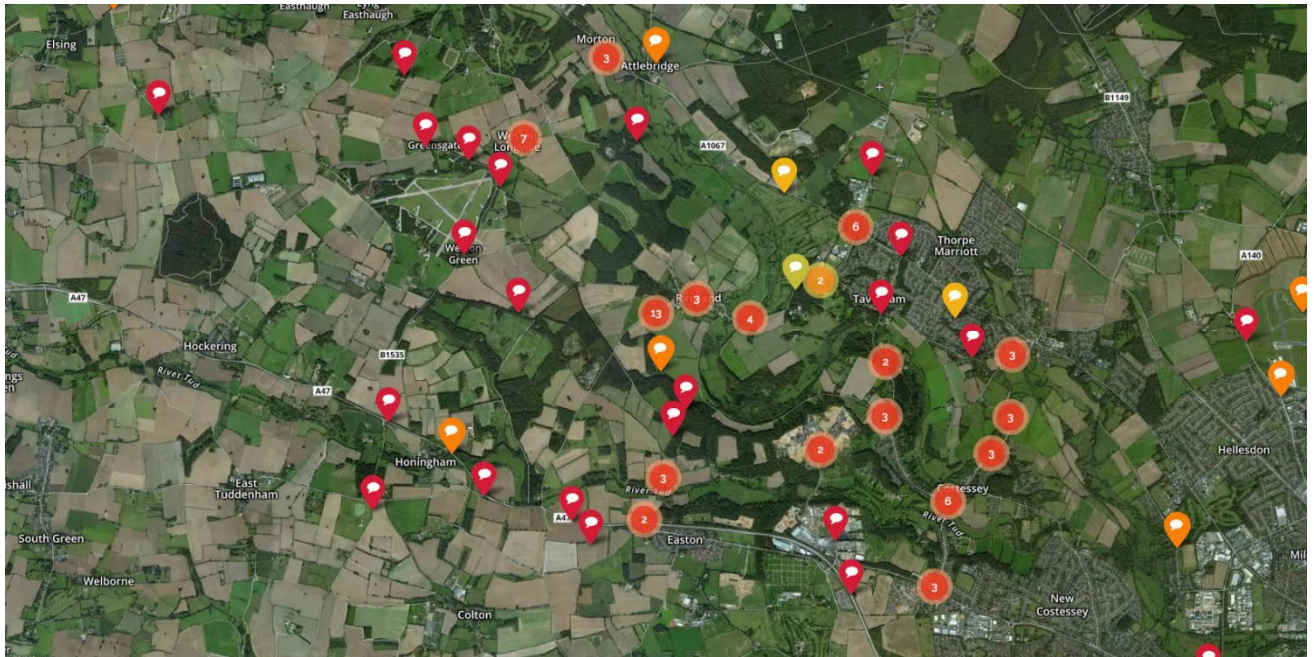
Figure 2-4 - Locations tagged with 'poor walking routes'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

- 2.2.8. The above plan shows that there are a number of areas that people view as having poor walking routes, with the greatest number of comments on poor routes pinned to the area in and around Ringland.
- 2.2.9. Ringland and in particular Honingham Lane is shown to be an area where the greatest number of respondents identified a poor standard of walking routes (16). Comments received highlight that the route is narrow with limited visibility and high volumes of traffic, making it unattractive for use. Ringland Road and The Street in Ringland are also highlighted as containing poor walking routes.
- 2.2.10. The Street, Costessey was highlighted by 11 comments as having poor walking provision as was Woodforde Close / Church Street, Weston Longville (8 comments); and Ringland Road towards Easton (7 comments).

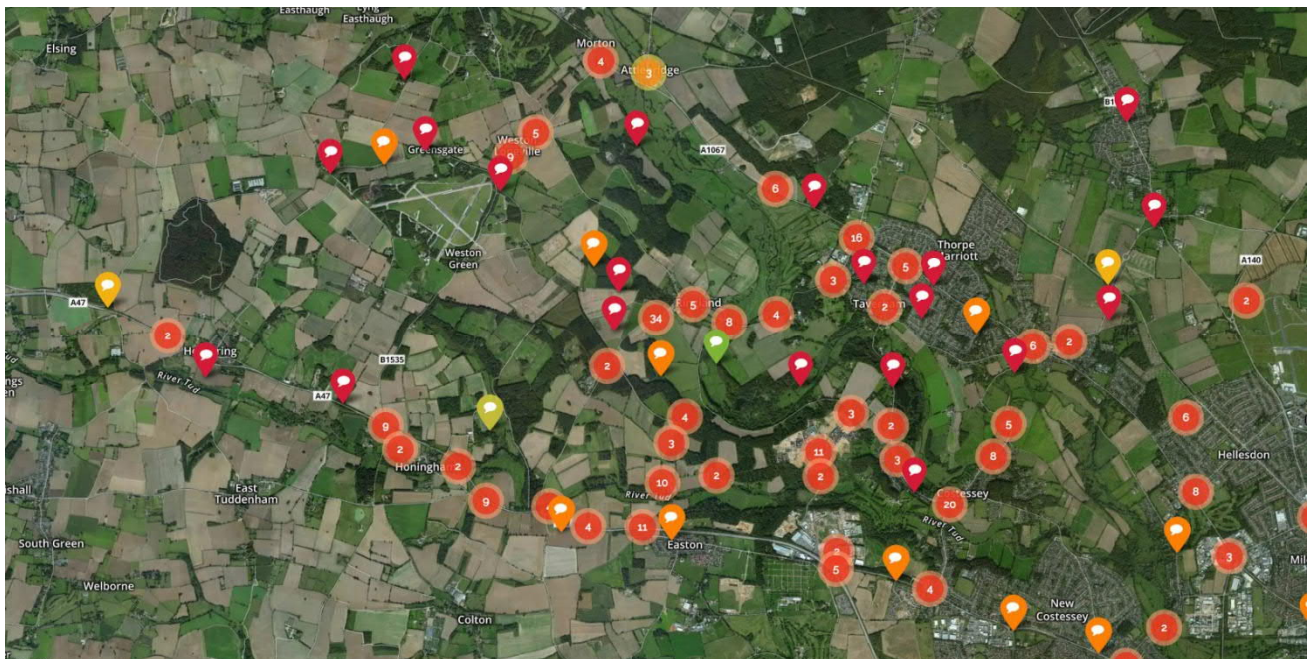
Figure 2-5 - Locations tagged with 'poor cycling network'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

2.2.11. Poor cycling connections were identified in similar locations to **Figure 2-4**, with areas within and surrounding Ringland shown to be in the greatest need of connections. Similarly, Costessey and Weston Longville are highlighted as poor connectors, highlighting the limited access of areas to the west of Norwich to travel sustainably.

Figure 2-6 - Locations tagged with 'traffic congestion'



Source: Norwich Western Link - Consultation Report for Norfolk County Council, Commonplace, 2018

- 2.2.12. The plan above shows that traffic congestion is experienced by respondents to the consultation across the study area, especially along key road links including the A47 and A1067. Local hotspots for this issue are shown in:
- Honingham Lane, Ringland - 34 comments;
 - Ringland Road, Ringland - 29 comments;
 - West End, Costessey - 16 comments;
 - Queen's Hills - 13 comments
 - Fakenham Road, Thorpe Marriot / Taverham - 28 comments; and
 - A47 / Berry's Lane / B1535 Wood Lane junction, Honingham - 9 comments;
 - A47 / Church Lane / Dereham Road, Easton - 9 comments;
 - Weston Hall Road, Lenwade - 9 comments.
- 2.2.13. The above plans highlight that respondents perceive significant negative effects associated with congestion issues and suggest walking and cycling in the study area is limited due to a lack of sustainable transport infrastructure provision.

2.3 OPTIONS PUBLIC CONSULTATION- WINTER 2018/2019

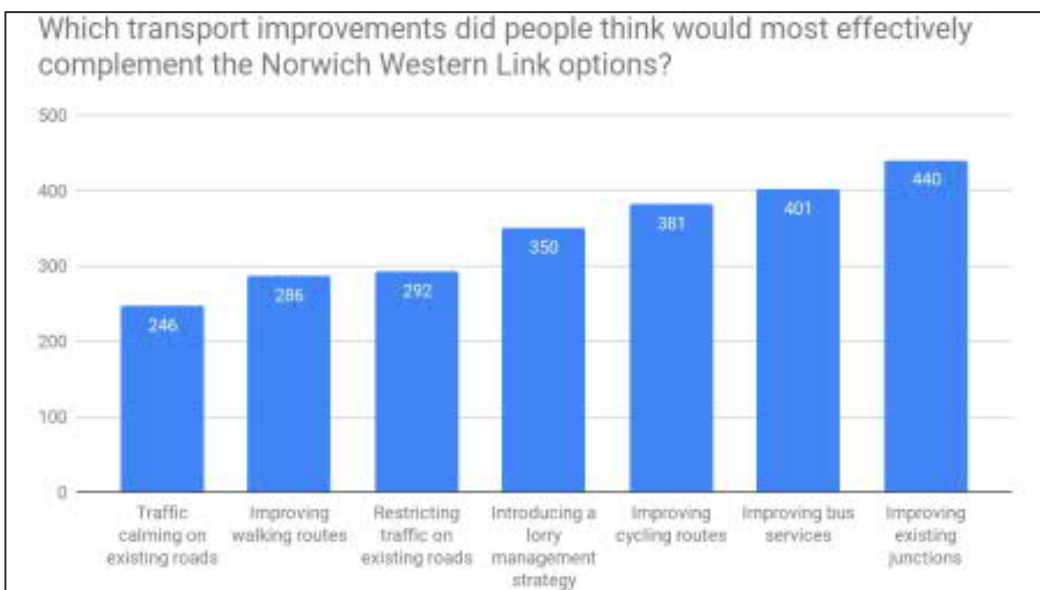
- 2.3.1. Between 26th November 2018 to 18th January 2019 a second non-statutory public consultation was held to inform the selection of a preferred option of the shortlisted road options. **Figure 2-7** below shows the options presented for public consultation in 2018. A total of 1,931 responses were received for the second public consultation, which included over 12,000 comments regarding the proposed route options.
- 2.3.2. Respondents were asked how effective they thought the options would be as a Norwich Western Link and which of the top 10 issues that were identified through the first consultation they believed the options would tackle. The top 10 issues were:
- Boosting the economy;
 - Improving emergency response times;
 - Better access to Norfolk and Norwich Hospital;
 - Better journey reliability;
 - Shortening journey times;
 - Road safety;
 - Reducing emissions from queuing vehicles;
 - Reducing congestion;
 - Reducing rat-running; and
 - Protecting the environment.
- 2.3.1. Regarding Option C, which was subsequently identified as the preferred route option, 62.2% of respondents thought that it would provide a very effective or fairly effective Western Link, and 29.7% thought that it would either be fairly ineffective or not very effective. The remaining proportion of respondents were neutral about Option C.
- 2.3.2. Respondents to the consultation believed that Option C would tackle rat-running the most effectively of each of the options, as well as being effective at reducing congestion and shortening journey times.

Figure 2-7 - Options presented for Public Consultation (November 2018)



2.3.3. Comments were also received on the other transport improvements which would be packaged to complement the overall NWL scheme. Question 5 of the consultation questionnaire asked whether there were any other transport improvements people felt could complement the NWL. As shown in **Figure 2-8**, Improving bus services and cycling routes were in the top three responses to this question.

Figure 2-8 - Quantitative Feedback on Other Transport Improvements



2.3.4. A total of 724 comments were received for Question 6 which asked respondents why they thought the transport improvements they had selected would most effectively complement the Norwich Western Link options selecting responses to Question 5. **Figure 2-9** below provides an outline of the comments raised, highlighting a clear desire for improved bus services and improvements to walking and cycling facilities.

Figure 2-9 - Comments received regarding other transport improvements (extract)

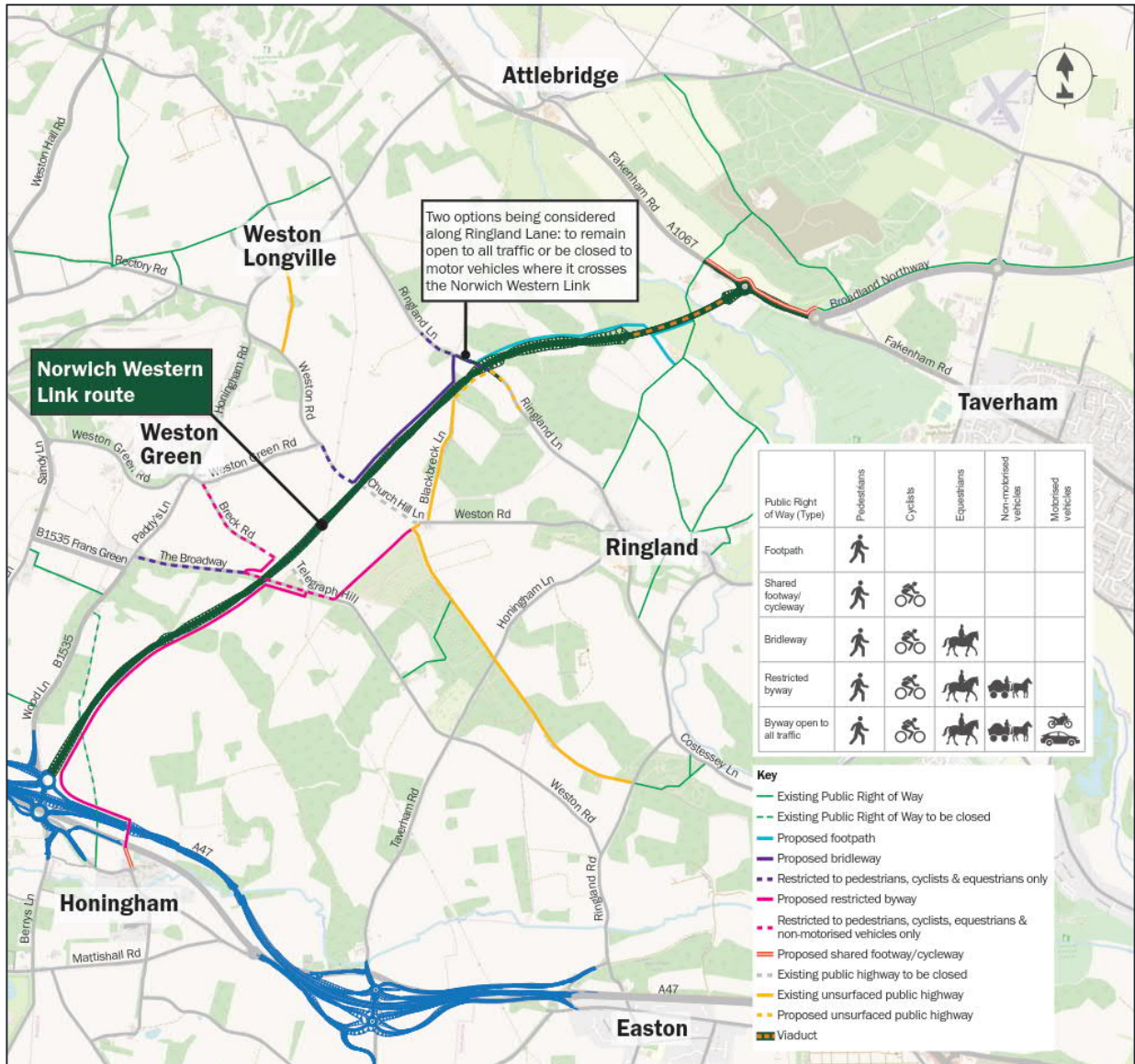


2.4 LOCAL ACCESS PUBLIC CONSULTATION SUMMER 2020

2.4.1. A Local Access Public Consultation took place in Summer 2020 (from Monday 27th July to Sunday 20th September 2020). This consultation sought views on the proposals for roads that cross the NWL, the Non-Motorised User Strategy and Public Rights of Way proposals adjacent to the scheme. The consultation also included high level bus strategy options and initial concepts for wider Sustainable Transport Interventions. A copy of the consultation brochure and feedback report is in **Appendix A**.

2.4.2. The proposals for the Non-Motorised User Strategy as consulted on are shown in **Figure 2-10**. They excluded highway bridges at Breck Road and Weston Road/Church Hill Lane and proposed that a green bridge for ecological movement and non-motorised users only would be installed at The Broadway. Two options were presented for Ringland Lane – either open to all traffic or restricted to non-motorised users only.

Figure 2-10 - Local Access Consultation NMU Strategy

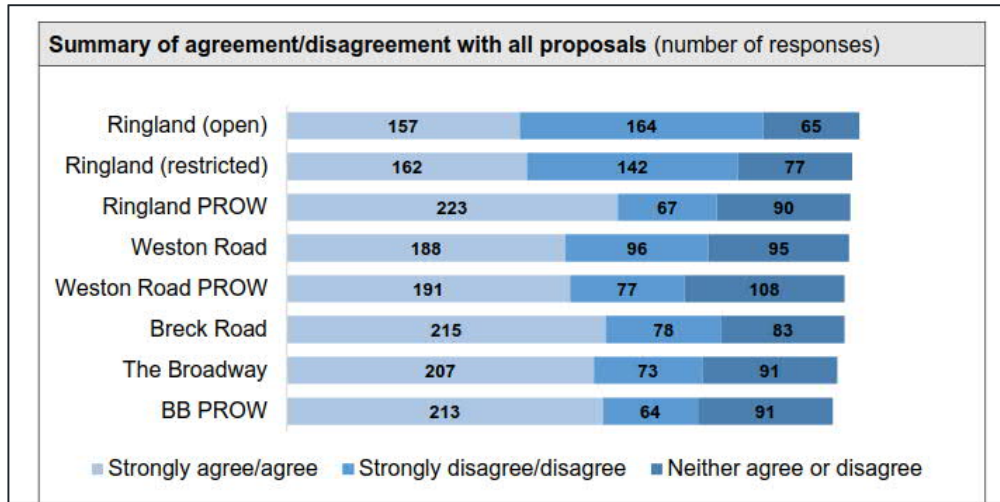


2.4.3. Almost three-quarters (316) of the 438 consultation respondents stated that they were responding as ‘a local resident’; forty respondents said they were replying on behalf of a local business, local organisation or community organisation. The consultation indicated good levels of support for the NMU strategy in principle. A summary of the headline results for each section of route is provided below in **Figure 2-11**. The quantitative and qualitative responses received via public consultation have been reviewed and explained further in **Appendix A**.

The following local businesses / organisations / community groups responded to the consultation:

- Arnolds Keys;
- Ashill Parish Council;
- Barford and Wrampingham Parish Council;
- Barnham Broom Parish Council;
- Brown and Co. on behalf of Easton Estate;
- Car-free Norwich;
- Costessey District Councillor;
- Costessey Town Council;
- Countryside Access Officer (North and East);
- CPRE Norfolk (x2);
- Easton Estate;
- Green Infrastructure Officer NCC;
- Green Party;
- Heaton Vences Chartered Accountants;
- Hockering Parish Council;
- Honingham Parish Council;
- Intu Chapelfield;
- IR and JK Copplestone;
- Kimberley and Carleton Forehoe Parish Council;
- Kixx Norwich;
- Morton on the Hill Parish Councillor;
- National Grid Gas plc;
- Norfolk Chamber of Commerce;
- Norfolk Labour Group and Clive Lewis MP;
- Norfolk Local Access Forum;
- Norfolk Sheet Lead Ltd / Zink It Ltd;
- North Norfolk District Council;
- Norwich Airport Ltd;
- Norwich Cycling Campaign;
- Permaculture Gardening Norwich;
- Ramblers' Association: Norfolk Area;
- Ringland Parish Council;
- RM Rutterford;
- Stop the Wensum Link;
- Weston Longville Parish Council; and
- Woodland Owner [not named].

Figure 2-11 - Summary of Local Access Consultation Feedback



- 2.4.4. Overall, the majority of respondents to the Local Access Consultation agreed with the proposals. However, opinion was fairly evenly split for the two options that were presented for Ringland Lane.
- 2.4.5. Wider options for potential sustainable transport interventions across a wider area were also consulted on and respondents were asked to prioritise their top three to assist with shortlisting. The options proposed are shown in **Figure 2-12** and feedback is summarised in **Table 2-2** below.

Figure 2-12 - Wider Sustainable Transport Interventions

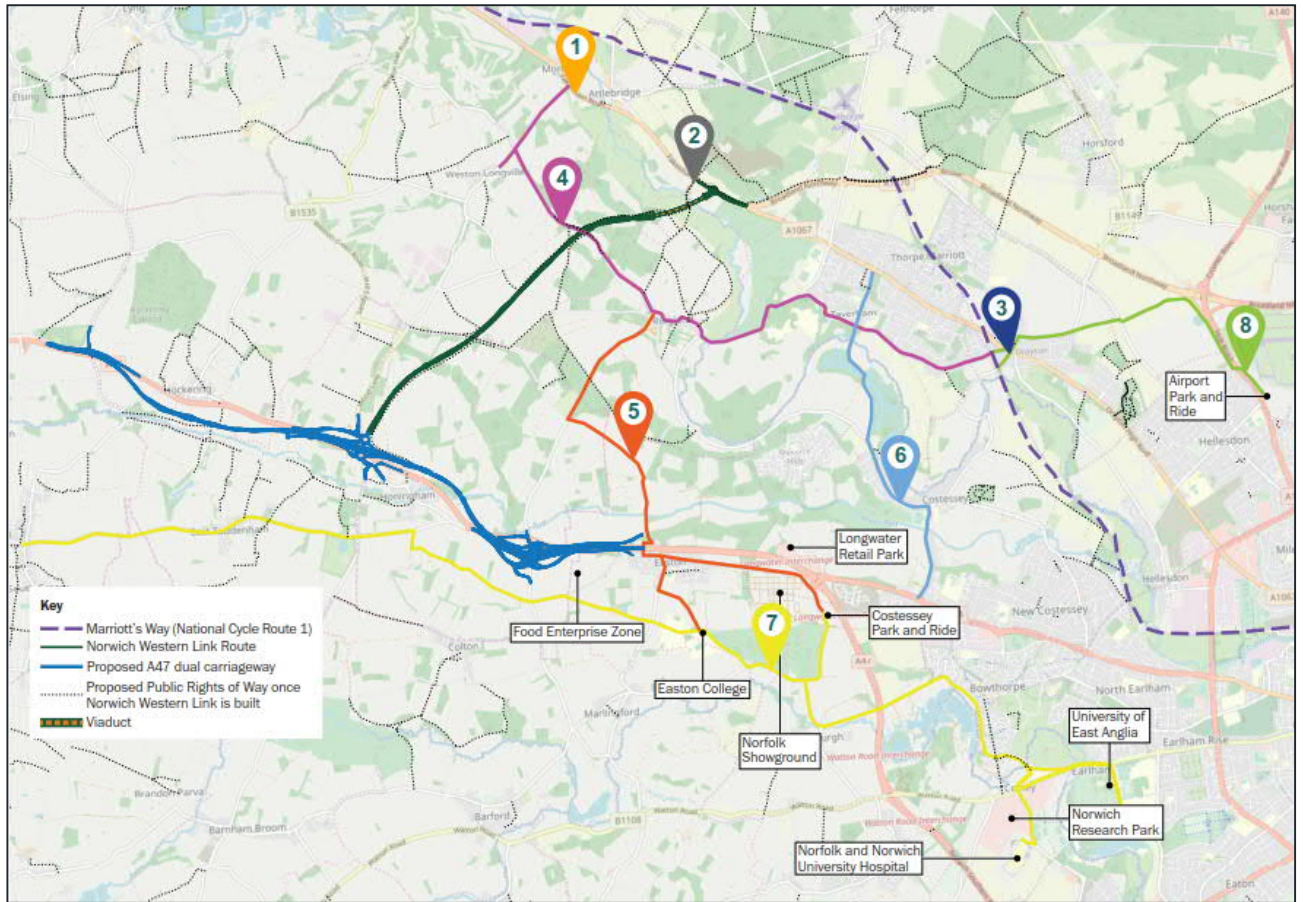


Table 2-2 – Quantitative Feedback in Response to Wider Sustainable Interventions

Option	Total	Percent
1) Create a new pedestrian and cycle crossing on the A1067 Fakenham Road at Attlebridge	130	40.88
2) Create a new pedestrian crossing on the A1067 Fakenham Road to connect Ringland Footpath 1, south of the A1067, with Attlebridge Restricted Byway 4, north of the A1067	116	36.48
3) Create a new pedestrian and cycle crossing on Drayton High Road to improve connectivity with the Marriott's Way	139	43.71
4) Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham	145	45.60
5) Create a cycle friendly on-road link from Ringland to Easton	114	35.85

6) Create a cycle-friendly on-road link from Taverham to Dereham Road	119	37.42
7) Create a cycle-friendly on-road link south of A47 from Mattishall to the Norfolk and Norwich University Hospital & University of East Anglia	131	41.19
8) Improve cycle parking at, and access to, the Airport Park and Ride site	65	20.44
<i>Note: % does not total 100% as respondents could pick multiple options</i>		

- 2.4.6. The measure most respondents said would best support people to walk and/or cycle in the area to the west of Norwich was option 4: Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham (145 people).
- 2.4.7. Options 3 and 7 were also highlighted as within the top three measures overall with Option 1 also receiving only marginally less support.
- 2.4.8. Two options for a potential 'Western Arc' bus service were also proposed as shown below in **Figure 2-13**. Feedback indicated that Route A (Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Taverham, Queen's Hills, Longwater and Bowthorpe) was the preferred Western Arc bus route. Route A was preferred by 119 people, and Route B by 67 people.

Figure 2-13 - Western Arc Bus Service Options



2.5 WORKING WITH HIGHWAYS ENGLAND

- 2.5.1. Since August 2019, when Highways England confirmed their appointment of a main contractor for the delivery of their A47 North Tuddenham to Easton dualling scheme, NCC and WSP have been working closely with Highways England and their appointed designers SWECO.
- 2.5.2. Regular meetings have been held with HE and discussions have focussed on achieving a joined-up approach to delivery of the two projects as they are closely linked and have a key interface at the Wood Lane junction with Berry's Lane and A47. The A47 proposed northern dumbbell roundabout will provide grade separated access to the Norwich Western Link.
- 2.5.3. In relation to WCHAR routes and the Side Road Strategy, the NCC PROW team and Highways Teams have provided guidance on local preferences and the NWL team has sought to achieve connectivity of the NMU strategy with the HE proposals particularly in the vicinity of Honingham and Easton. In August 2020, a joined-up approach between Highways England and the NWL Project Team was created for the lifecycles of both projects going forward. Highways England agreed to attend all future LLG meetings (a meeting attended by local parish councillors, NCC, WSP and HE, explained in further detail in **Section 2.8**), allowing for greater transparency in how the projects link

with each other. Highways England also attended the NWL Sustainable Transport Workshops and LLG meetings as set out below.

2.6 TRANSPORT FOR NORWICH

- 2.6.1. As noted in **Section 1.4**, the NWL Project Team is liaising with Transport for Norwich to ensure that the measures set out in this STS align with their project objectives, providing the greatest benefit possible. The TfN Manager has attended the Sustainable Transport Stakeholder Workshops and is kept informed of the progress made through the NWL project lifecycle.

2.7 SUSTAINABLE TRANSPORT STAKEHOLDER WORKSHOPS

- 2.7.1. As set out in **Appendix B** (which includes the minutes and slides) there have been a number of sustainable transport stakeholder workshops held which have helped to generate ideas for inclusion within the Sustainable Transport Strategy.
- 2.7.2. Following selection of a preferred option in July 2019, four meetings were held with the sustainable transport group in October 2019, January 2020, August 2020 and March 2021 in order to develop a complementary set of measures to accompany the NWL proposals, covering walking, cycling, equestrian movement and public transport. Full outputs from the meetings are explained in detail in the WCHAR, included in **Appendix C**.

WORKSHOP 1

- 2.7.3. On Friday 18th October 2019, a stakeholder engagement workshop was organised to gain understanding of what measures non-motorised user groups and individuals with an interest in non-motorised and sustainable transport would like packaged with NWL. Representatives of the following groups and organisations were in attendance:

- Norfolk Horse Driving Club;
- Norwich Cycle Campaign;
- NCC Countryside Access;
- Norfolk Local Access Forum;
- Ramblers;
- Pathmakers;
- NCC Passenger Transport;
- Transport for Norwich strategy team;
- Galliford Try;
- Sweco;
- Konectbus; and
- Highways England.

- 2.7.4. A questionnaire was distributed at the end of the workshop to gain understanding of how members or users of the groups currently use the routes that the NWL will sever and how they would like to see them improved, if possible. The results were used to guide the proposals set out in the Local Access Consultation and to write the NMU Strategy and WCHAR documents.

WORKSHOP 2

- 2.7.5. A second stakeholder workshop was held on Friday 24th January 2020 to give an update on the emerging Sustainable Transport Strategy, underpinned by the WCHAR, NMU and Bus Strategy and to receive feedback on the emerging ideas.

- 2.7.6. Representatives from Norfolk County Council, Norwich Cycle Campaign, The Ramblers, First Bus and Konectbus were in attendance to receive feedback on the emerging ideas.
- 2.7.7. The Bus Strategy was first presented, and operator feedback from First Bus on the potential loop service suggests that if it is to be subsidised in the early stages of operation, it cannot be seen to compete with existing services. Konectbus have reviewed the loop route, which is longer than an ideal one hour, and so a shorter linear route will be examined to allow the service to operate at a higher frequency.
- 2.7.8. Norwich Cycle Campaign queried why there was no cycle route proposed alongside the viaduct structure – NCC PROW Team highlighted that it has been agreed at the previous workshop that this would not be appropriate through the floodplain below the viaduct. A bridleway designation would require the upgrading of routes within the sensitive landscape and poor ground conditions. The NWL team further explained that to include cycling facilities on the viaduct would require a wider structure crossing the Wensum Special Area of Conservation, which would impact on the ecological sensitivity of the SAC and would most likely outweigh the benefits as no overwhelming evidence base shows there is a need for a cycle route crossing the River Wensum.
- 2.7.9. The provision of north-south cycling routes had been explored as part of the wider cycle friendly route options, and it was concluded that on-road links with traffic reduction measures would become more attractive to cyclists. The existing routes offer more direct connectivity between origins and destinations and can be improved with additional speed management measures, so that they become less intimidating for users than a route over the viaduct in close confines with high volumes of high speed traffic. This is considered to eliminate the need for a cycleway along the viaduct.
- 2.7.10. The NCC PROW Team suggested that Weston Longville FP9 should be upgraded to restricted byway status to allow horse drawn carriages to continue north to Blackbreck Road – possibly with structures such as Kent carriage gaps to prevent access to motor vehicles, although this will need to be explored with the consent of the landowners.

WORKSHOP 3 - BRIEFING SESSION ON LOCAL ACCESS CONSULTATION

- 2.7.11. A third meeting was held on Friday 14th August 2020 as a briefing session where members of the NWL Project Team were able to explain the latest proposals included in the Local Access Consultation and show how the feedback received at previous meetings has shaped the NMU Strategy and wider STS. The following groups were in attendance:
- Konectbus;
 - First Bus
 - Norwich Cycling Campaign;
 - Ramblers;
 - Pathmakers;
 - British Horse Driving Society;
 - Transport for Norwich strategy team;
 - NCC Head of Passenger Transport;
 - Highways England;
 - Norfolk Local Access Forum; and
 - NCC Countryside Access Officer.

- 2.7.12. Questions raised during this meeting requested explanations around how the public consultation proposals had been created, how the routes would deter motorised vehicles from using them and how the bus options will be commercial but not compete with existing services.
- 2.7.13. Konectbus announced that a new service would operate from Norwich Airport Park & Ride to UEA from the 14th September 2020. The new route would include The Boundary roundabout and Earlham Road, so a section of the Western Arc service Option B would be provided. The feedback from the Local Access Consultation had shown that Option A was the most popular and therefore there is the possibility to operate both routes in the future.

WORKSHOP 4 - UPDATE SESSION OUTCOMES OF LOCAL ACCESS CONSULTATION

- 2.7.14. A fourth meeting was held on Tuesday 2nd March 2021 as a further update session in which members of the NWL Project Team were able to explain the outcomes of the July 2020 Local Access Consultation and show how the feedback received has shaped the NMU Strategy and wider STS for OBC submission. The following groups were in attendance:
- Konectbus;
 - First Bus
 - Norwich Cycling Campaign;
 - Ramblers;
 - British Horse Driving Society;
 - Transport for Norwich strategy team;
 - NCC Head of Passenger Transport;
 - Norfolk Local Access Forum;
 - NCC Green Infrastructure Officer; and
 - NCC Countryside Access Officer.
- 2.7.15. Questions raised during this meeting included the rationale for option selection and treatment of cycle friendly routes. Connectivity with Wood Lane and routes crossing the Wensum valley for cycling were also discussed.
- 2.7.16. The updated Non-Motorised User Strategy and shortlisted Cycle Friendly Route Options were explained and in general the proposals were well received by the group, with additional comments requested to follow on from the meeting for inclusion in the notes.
- 2.7.17. Konectbus updated that their new bus service had been tested between Norwich Airport Park & Ride site and UEA from September to December 2020. The new route covered a section of the Western Arc service Option B route. The service had been discontinued due to COVID-19 impacts on bus patronage, however, the operator acknowledged there had been positive signs of a commercial market for this route which was encouraging. The feedback from the Local Access Consultation had shown that Option A was the most popular and therefore there still remains the possibility to operate both routes in the future.

2.8 LOCAL LIAISON GROUP WORKSHOPS

- 2.8.1. Bi-monthly meetings are held with representatives from 33 local parishes around the scheme; the list of parishes is set out within the LLG Terms of Reference (ToR) which are reproduced in **Appendix D**.

- 2.8.2. An interactive workshop session involving the LLG was hosted by NCC in October 2019 to formulate ideas for consideration as part of the STS. Along with the Sustainable Transport Group ideas, this helped shape the early emerging draft NMU strategy which was initially shared with the LLG in December 2019.
- 2.8.3. From August 2020, Highways England have also taken a more involved role in the Local Liaison Group, leading to revised ToR agreed in October 2020 for a joint approach to LLG meetings going forward.

2.9 LOCAL PARISHES CLOSE TO THE SCHEME

- 2.9.1. In addition to the Local Liaison Group forum, there have also been several meetings with parishes closest to the NWL alignment, and these informal discussions in smaller groups have influenced the detail of the STS proposals.

2.10 TASKFORCE SOUTH OF A47

- 2.10.1. Following the selection of a preferred option in July 2019, concerns were raised by parishes to the south of NWL and the A47 about potential traffic impacts through parishes south of A47 on their communities. In response to this, a taskforce group was set up by local MP George Freeman. This has led to a series of meetings involving both NCC and Highways England, which have influenced the design of Highways England's proposals for the Wood Lane junction and its connectivity with Berry's Lane.

3 THE OPTION DEVELOPMENT AND SELECTION PROCESS

3.1 EARLY STAGE SCOPING AND FEASIBILITY WORK

- 3.1.1. In 2014, Mott MacDonald prepared an early stage appraisal report which considered previous options which had been developed when the Western Link formed part of the Norwich Northern Distributor Road (NDR) proposals (in a 2004 consultation). New options were also considered and a public transport option was included in the appraisal.
- 3.1.2. The public transport option was similar to the Western Arc Option A route (Hospital to Thorpe Marriott) which was the preferred option in the Local Access Consultation 2020. In the 2014 study this option scored well in the multi-criteria assessment sifting process, against the majority of EAST (Early Appraisal Sifting Tool) criteria other than the Specific Scheme Objectives. Hence other options were prioritised for further development.

3.2 OPTIONS ASSESSMENT REPORT

- 3.2.1. Once the need for a Western Link solution was identified, via the summer 2018 public consultation, 82 potential options were considered as the starting point for the study. An Option Assessment Report (OAR) was prepared following WebTAG methodology known as EAST. The process considered how well the options scored against high level and specific objectives for the scheme and DfT East criteria on economic appraisal; an environmental matrix was also incorporated into the process due to the sensitivity of the surrounding landscape. The highest performing options which were expected to offer best value for money were shortlisted for further development. Following the systematic process of option sifting, the following 10 non-highway options were short-listed for consideration:
- Option 39: Improvements to existing junctions;
 - Option 40: Signing and lining improvements;
 - Option 41: Signal improvements;
 - Option 44: New / improved crossing points;
 - Option 49: Improvements to existing bus services (28, 29 and X29);
 - Option 50: Improvements to existing bus services (23, 23A and 24);
 - Option 55: Promote cycling schemes;
 - Option 58: Mobility as a service scheme;
 - Option 68: Lorry management strategy; and
 - Option 74: New bus route connecting Dereham, Hellesdon and Norwich Airport.
- 3.2.2. Further sifting found that the non-motorised user options were less effective at meeting some of the scheme objectives (particularly specific objectives S1 and S2) and were less able to offer a resilient future-proofed solution in isolation. However, non-highway options were found to assist with meeting objectives S3 and S6. Therefore, the measures were set aside for future packaging and feedback during the Round 2 Public Consultation.

3.3 STRATEGIC OUTLINE BUSINESS CASE (SOBC)

- 3.3.1. A Strategic Outline Business Case was prepared in accordance with WebTAG guidance (and the agreed Appraisal Specification Report) for submission to DfT, seeking to initially secure approval for

development funding as a precursor to preparing a more detailed OBC and FBC in the later stages of the project.

- 3.3.2. The SOBC considered four shortlisted options and two sub options, comparing their contribution towards a strategic case, as well as estimating in high level terms their financial and economic performance, as well as setting a range of options for the commercial and management cases.
- 3.3.3. A draft was submitted to DfT in Autumn 2019 and this was revised in December 2019 to include increased emphasis on a package of sustainable transport interventions which was being developed following the selection of a preferred option. The update also included additional policy on achieving reducing Carbon emissions going forward which sustainable transport interventions would potentially assist with.

3.4 OPTION SELECTION REPORT (OSR)

- 3.4.1. The OSR concluded that Option C should proceed as the preferred option for the NWL main highway alignment. This was the second most popular option from public consultation. The OSR also recommended based on feedback from consultation that the preferred option should be accompanied by a series of complementary sustainable transport proposals.
- 3.4.2. The STS was envisaged to encourage active and sustainable travel for shorter distance trips, for example creating new cycle and equestrian routes on minor rural roads that will receive a traffic reduction, linking existing and growing communities and helping to alleviate congestion on the inner routes close to Norwich for instance between Taverham and Costessey, Ringland and Weston Longville, as well as improving access to workplaces and the proposed food hub.
- 3.4.3. To inform the development of a complementary package of non-motorised user interventions, a Walking, Cycling & Horse Riding Assessment and Review was undertaken in accordance with DMRB GG142. This guidance is prepared in line with Highways England's Strategic Business Plan and Roads Investment Strategy, as well as the Infrastructure Act 2015.
- 3.4.4. A Sustainable Transport Strategy would then be produced for input to the Outline Business Case which seeks to maximise opportunities for transferring shorter distance band trips to non-motorised modes of travel such as walking and cycling where possible.
- 3.4.5. The measures would focus on enhancing accessibility and safety for non-motorised users on existing routes where there would be traffic relief as a result of the NWL scheme. This could include targeted access restrictions to through traffic on some routes or dedication of Quiet Lanes to keep traffic volumes low (for example by implementing Traffic Regulation Orders and partial route closures but retaining essential vehicle access only for landowners with property accesses directly onto these routes). This would help make the routes more attractive and safer for Non-Motorised Users.
- 3.4.6. Given the rural setting of the area and attractiveness of the landscape, the NWL could also assist with supporting longer distance leisure trips by equestrians and cyclists. For leisure and commuting use, this would generally consist of giving priority to cycles/equestrians on quieter existing roads where parallel routes exist, installing minor highway interventions to keep traffic speeds sufficiently low and raising driver awareness of vulnerable users on these routes whilst appropriately managing conflicts between vehicles and vulnerable users.

- 3.4.7. At the time of the OSR it was anticipated that the assessment and strategy would focus on the following key routes, based on initial scoping discussions with cycle officers at NCC.
- Longwater to Taverham via Queens Hills;
 - Ringland to Easton and Costessey P&R;
 - Ringland to Lenwade via Weston Longville;
 - Hockering to Honingham;
 - Great Witchingham to Attlebridge;
 - Identify A1067 crossing opportunities at Attlebridge and Drayton;
 - Identify how best to achieve Marriott's Way connectivity; and
 - Connectivity with Highways England proposals for A47 multi-user crossings.
- 3.4.8. The need for commercial viability of public transport services is noted as the key driver for efficient bus operation, with bus companies attracted to routes which have higher density development alongside to maximise patronage and viability. Since the NWL is not coupled directly with development, it is unlikely that the NWL route itself would support new bus service routes directly.
- 3.4.9. However, the NWL scheme is envisaged to support important bus services such as the X29/29 service from the North West of the county by intercepting some of the traffic that currently uses Fakenham Road and road routes parallel with the NWL such as the outer ring road. This would potentially assist with improving bus journey time reliability on existing routes by freeing up road space and capacity on the western edge of the City. Coupled with the A47 dualling scheme from North Tuddenham to Easton and removal of existing roundabouts on the A47, the two schemes would also assist with speeding up bus journey times for 23/ 23A and 24 which operate on A1074 Dereham Road. With improved reliability, existing services would be more likely to attract patronage and investment, leading to improved frequency.
- 3.4.10. Following the NWL Preferred Route Announcement, meetings have been held with bus operators to understand opportunities in more detail, exploring whether the provision of a new link through the study area would create new commercial opportunities for additional bus services as a result of traffic relief to alternative routes. For example, exploring whether more direct links between settlements to the north of Norwich (such as North Walsham and Aylsham amongst others) could be established with key destinations on the south west of the city (e.g. NNUH, UEA and NRP) with the NWL in place, or whether enhanced Park and Ride services could be facilitated with improved vehicle accessibility to the Costessey and Airport sites.
- 3.4.11. All of the above would assist with meeting the specific NWL scheme objectives and strategic outcomes; and any associated mode shift would also contribute towards strengthening the business case for the scheme.

3.5 EQUALITY IMPACT ASSESSMENT

- 3.5.1. The Equalities Act and Human Rights Act has made it a legal requirement to ensure that the needs of all users are considered within the design of new public infrastructure. It is also essential to avoid discriminating against groups of users with protected characteristics (such as race, gender, age, mobility, maternity, religion, sexual orientation and ethnicity).
- 3.5.2. An Equality Impact Assessment (EqIA) is being prepared by NCC and will be updated at each stage of the project as the level of detail increases.

- 3.5.3. The EqIA produced in January 2020, and distributed to members of the LLG, forecast that the scheme is likely to have an impact on all people living and working or travelling through the area. The EqIA notes that Norfolk has a higher than average number of older residents, compared to other areas of the UK, and a growing number of disabled young people.
- 3.5.4. Having identified the people who may be affected by the NWL proposal, the potential impact was analysed, so that solutions could be set out:
- Severance - During Construction
 - A new dual carriageway through an existing rural landscape consisting of a number of small rural communities has the potential to cause severance and leave vulnerable member of the community isolated from vital services.
 - The construction phasing will need to be carefully considered to ensure impact on local communities is limited and that essential services remain accessible to all through the works.
 - Early contractor involvement and early design consideration should aid with appropriate planning.
 - Severance - Post Construction
 - Due consideration will be given to which sections of the highway, if any, can be stopped up and impact on access to vital services considered throughout the design process.
 - Cycling, Walking and Public Transport Improvements
 - Any sustainable transport improvements will consider all users with particular consideration given to those protected characteristics likely to effected by the scheme. Appropriate guidance will be used, and safety and design audits carried out throughout the design processes.
 - Accessibility During and Post Construction;
 - Due consideration will need to be given to accessibility during the construction phase of the project and throughout the design phase and monitored closely during construction. All temporary traffic and pedestrian management will need to be designed with vulnerable users in mind, appropriate levels of design carried out at appropriate levels of detail included in the contract document.
- 3.5.5. To overcome any adverse impacts, the NWL Project Team will continue to engage with vulnerable user groups and ensure accessibility issues are resolved in a practical and appropriate way, throughout the project lifecycle. At each stage of the design the EqIA will be updated to reflect the latest developments of the scheme and assess any changes in impacts on people with protected characteristics.

3.6 NEW TRANSPORT GUIDANCE

- 3.6.1. New cycle design guidance was published by the Department for Transport (and UK Government) in July 2020, which encouraged a high quality of cycle provision for new routes going forward. These have been considered in this strategy and will inform the ongoing design of the NMU strategy.

Gear Change (July 2020)

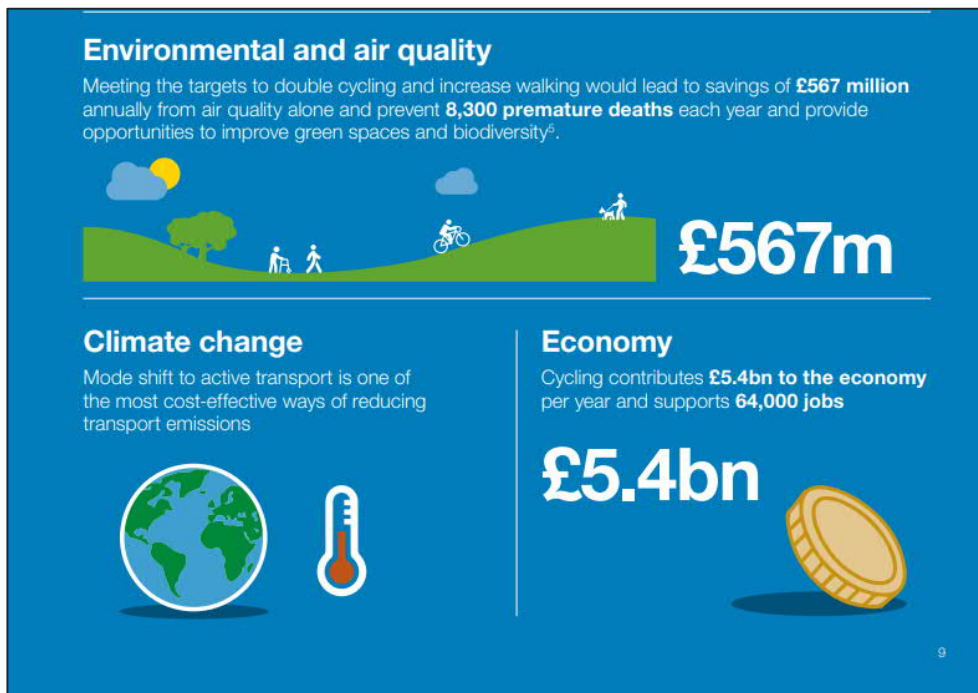
- 3.6.2. This plan describes the vision to make England a great walking and cycling nation. It sets out the actions required at all levels of government to make this a reality, grouped under four themes:
- Better streets for cycling and people;
 - Cycling and walking at the heart of decision-making;

- Empowering and encouraging local authorities; and
- Enabling people to cycle and protecting them when they do.

3.6.3. In accordance with the Gear Change policy, the NWL is supported by this Sustainable Transport Strategy that seeks to improve the existing walking and cycling facilities and provide new facilities in the surrounding area. It seeks to divert the existing routes, where they are severed by the scheme, with new green bridges providing grade-separated crossings and an improved and extended Public Rights of Way network around the link. The wider measures offer improved priority for cycling on routes that receive traffic reduction as a result of the highway scheme. They also create safer crossing facilities on A1067 to provide onward connectivity with the Marriott’s Way strategic cycle corridor that takes Non-Motorised Users into central Norwich.

3.6.4. Gear Change responds to the Climate change agenda emphasising the environmental benefits of encouraging and supporting sustainable travel, with a target to double cycle and increase walking.

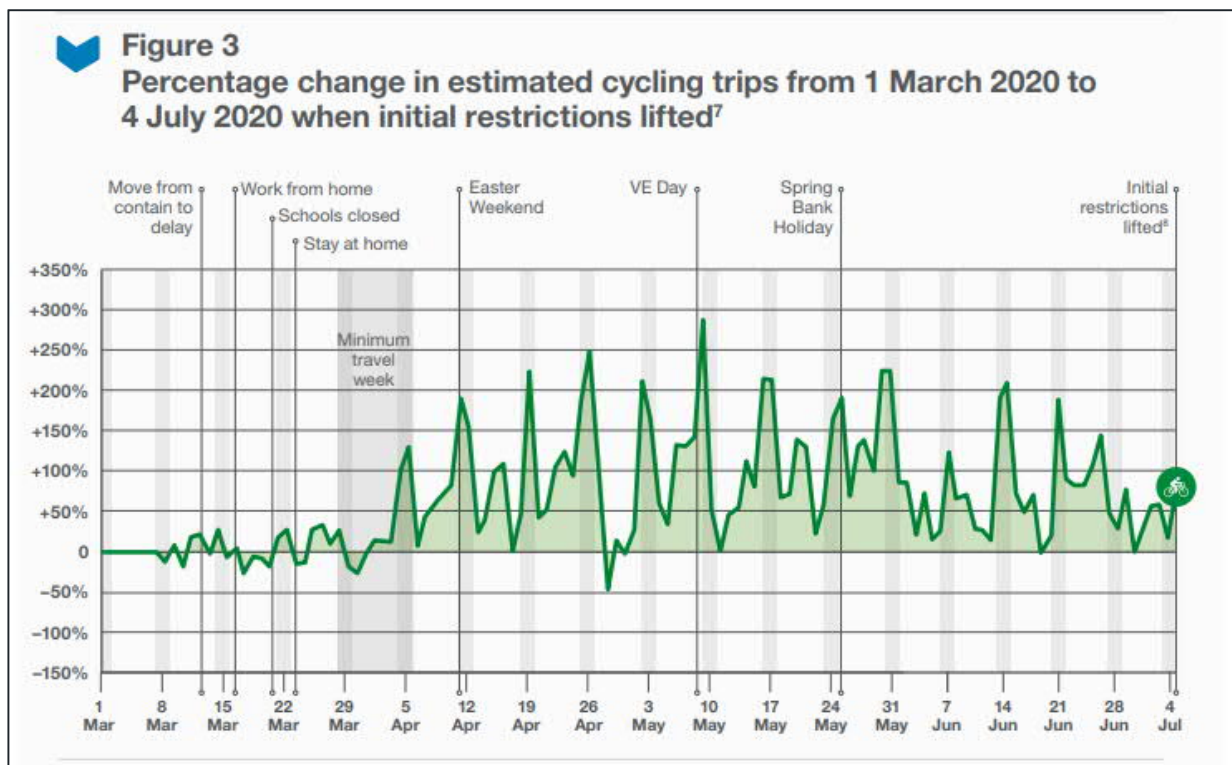
Figure 3-1 - Targets for and Benefits of Doubling Cycling and Increasing Walking



Source: Gear Change: A bold vision for cycling and walking, Department for Transport, 2020

3.6.5. This ambition has been partly derived from direct experience during the COVID-19 Pandemic in 2020, with a 100% increase in cycling observed and close to 300% in some locations across the UK (as noted in **Figure 3-2**):

Figure 3-2 - Gear Change Figure 3 Impacts of COVID-19 Travel Restrictions on Cycling



Source: *Gear Change: A bold vision for cycling and walking, Department for Transport, 2020*

- 3.6.6. The NWL sustainable transport strategy responds to this new guidance by providing improved network conditions for cycling by reducing traffic on rural minor roads around the NWL to low levels, enabling them to be made more suitable for cycling with supporting measures to control vehicle speeds.

Cycling and Walking Investment Strategy

- 3.6.7. The statutory Cycling and Walking Investment Strategy (CWIS) sets a clear ambition to make cycling and walking the natural choices for short journeys or as part of a longer journey with supporting objectives to increase cycling and walking levels.
- 3.6.8. This STS sets out how the NWL scheme seeks to improve the existing walking and cycling facilities in the surrounding area. The scheme includes green bridges, improved walking and cycling infrastructure and crossing facilities. It will also tie in to existing walking and cycling infrastructure to the north and the south of the scheme.

LTN 1/20 (July 2020)

- 3.6.9. Local Transport Note LTN 1/20 provides guidance and good practice for the design of cycle infrastructure, in support of the CWIS. It supports the delivery of high quality cycle infrastructure and reflects current good practice, standards and legal requirements. It sets clearer guidance on how to design for cycling in different types of conditions in both urban and rural areas and also offers direction on types of intervention suitable for different thresholds of traffic speed and volumes.

- 3.6.10. The majority of routes close to the NWL are rural lanes through small hamlets and villages, many of which currently carry more traffic than is suitable for the scale of existing highway infrastructure and constrained network conditions.
- 3.6.11. However, with the NWL in place, traffic relief will be provided to local villages, with traffic flows on many links reduced to below 2,000-2,500 vehicles per day AADT in the opening year of 2025. This enables the existing infrastructure to be re-purposed to prioritise cycling and walking without building extensive extra new links (albeit with speed management measures required to control speeds to low levels). The sentiment of the guidance is indicated below in **Figure 3-3** – Chapter 7 of the guidance applies to rural lanes and quiet lanes. This guidance has been considered and will be used to inform the ongoing design.

Figure 3-3 - LTN1/20 Chapter 7 Overview



Source: *Local Transport Note 1/20 - Cycle Infrastructure Design, Department for Transport (July 2020)*

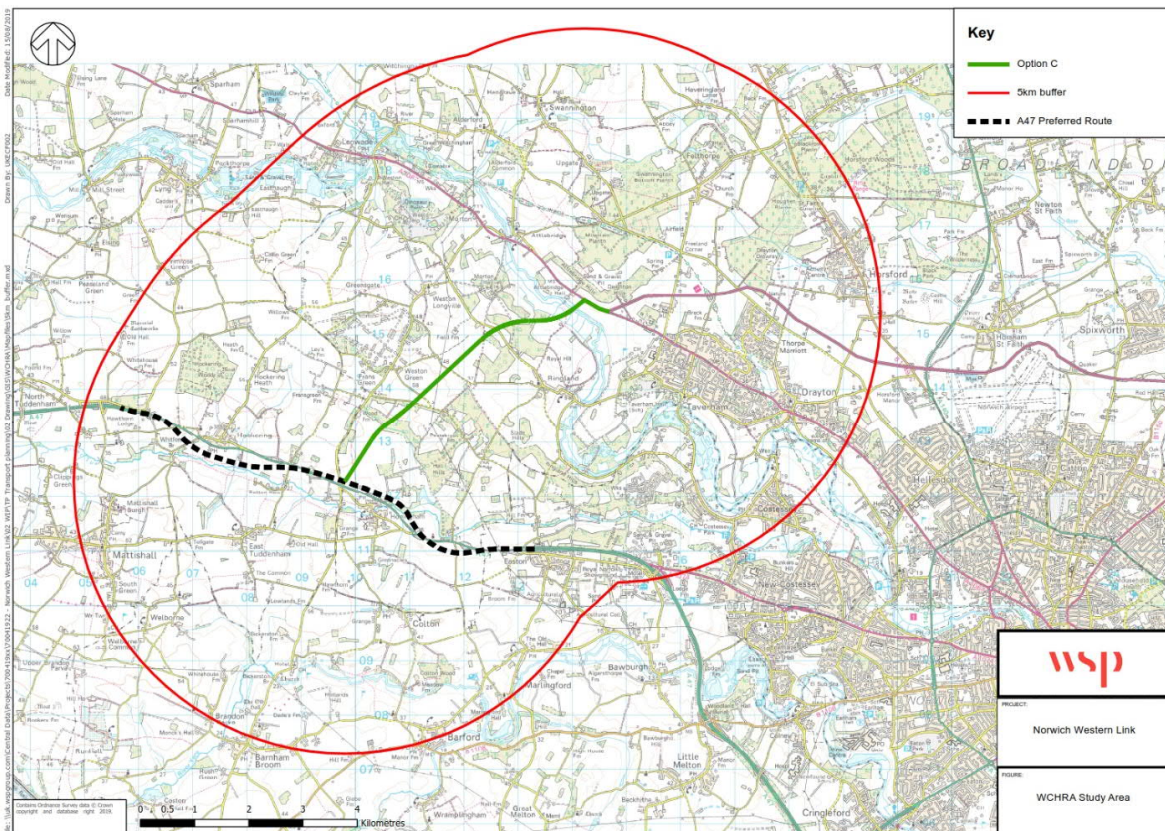
4 WALKING, CYCLING & HORSE RIDING ASSESSMENT REPORT

4.1.1. An Assessment Report was prepared in accordance with DMRB GG142 Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) [Superseding HD 42/17 in November 2019], which is Highways England’s overall process for the consideration of walking, cycling and horse-riding facilities within highway schemes. In accordance with GG142, the scale of the scheme has been judged (by the Lead Assessor) to qualify as a large scheme for the purposes of the Assessment. With the following information requirements:

- Review of the walking, cycling and horse-riding policies / strategies;
- Collision data;
- Description of public transport facilities;
- Key trip generators and local amenities;
- Site visit;
- Consultation with key stakeholders;
- Description / review of existing walking, cycling and horse-riding network facilities at a local and county wide (strategic) level;
- Collation and analysis of walking, cycling and horse-riding data; and
- Evidence of consultation with local user groups and the wider public.

4.1.2. The study area for the WCHAR has been set by the Lead Assessor and is approximately 5km from the centre of the scheme, as per GG142 guidance. The study area includes parts of the districts of Breckland, Broadland and South Norfolk, as shown in **Figure 4-1**.

Figure 4-1 - WCHAR Study Area



4.1.3. The WCHAR provides the design team with relevant background information and identifies opportunities to facilitate the inclusion of all walking, cycling, and horse-riding modes in the highway schemes design process. The study was developed with input from transport stakeholders and the Local Liaison Group of Parish Council Representatives. **Figure 4-2** shows a sustainable transport workshop carried out with the LLG in September 2019.

Figure 4-2 - Local Liaison Group Workshop September 2019



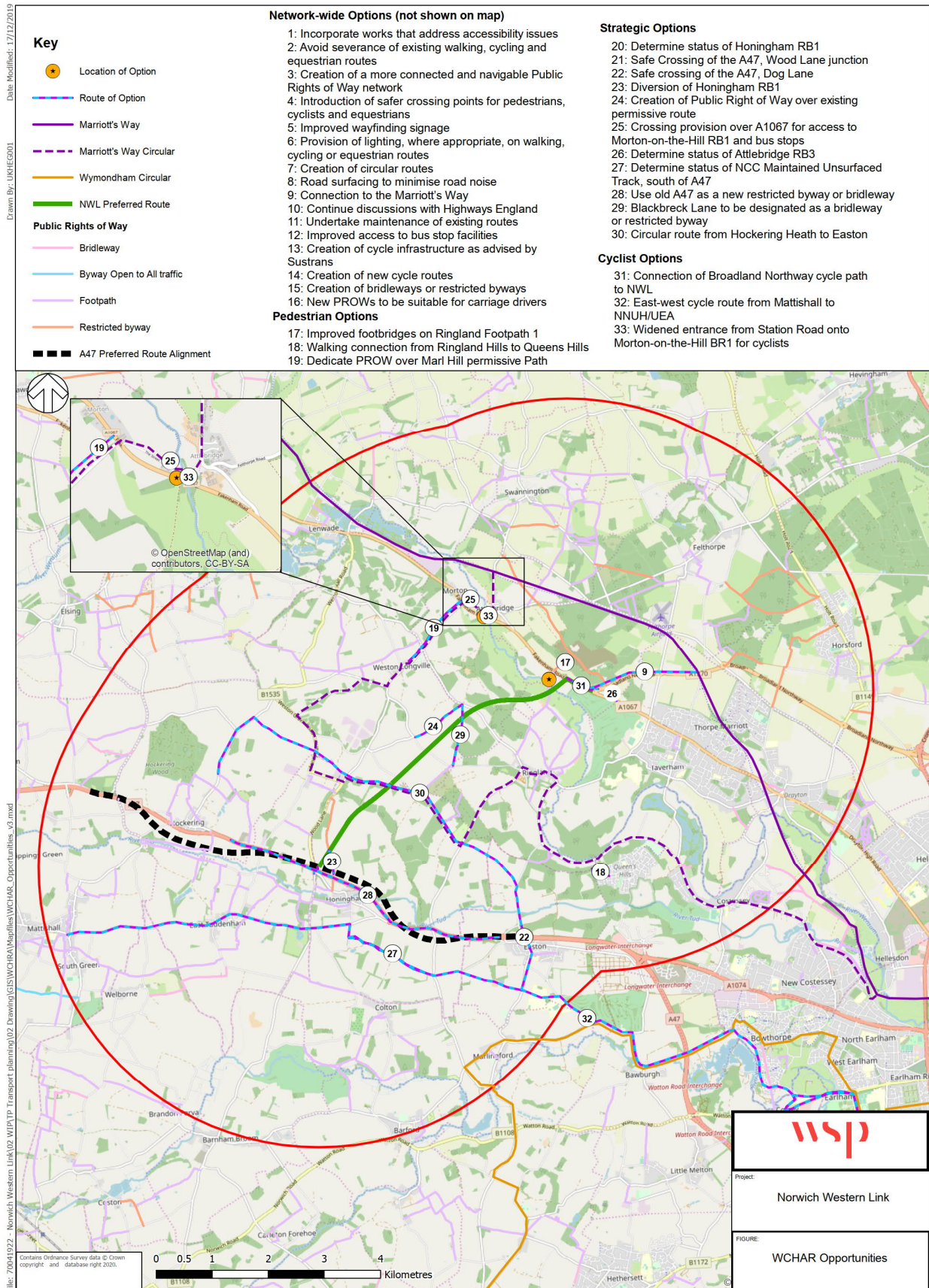
4.1.4. The output helped inform the NMU Strategy and the wider sustainable transport interventions set out within the Local Access Consultation.

4.1.5. The full WCHAR report is included in **Appendix C**. However, the process can be summarised as follows:

- Initial public consultation in Summer 2018 to seek feedback from local residents;
- WCHAR Study of existing network within 5km radius of the NWL;
- Options Consultation in November 2018 which sought identification of potential opportunities for connectivity and accessibility enhancement;
- Development of options for new highway bridges and underpasses to retain access where the NWL crosses existing public highways;
- Preparation of NMU Strategy to inform Reference Design for procurement of a Design and Build Contractor;
- Development of green bridge proposals that can be shared with Non-Motorised Users;
- Consideration of an alternative strategy with the majority of sideroads closed to reduce through traffic through villages on minor roads;
- Local Access Consultation in Summer 2020 to seek feedback on proposals for routes that cross the NWL and proposed Non-Motorised User strategy excluding highway bridges;
- Option refinement in response to feedback from consultation and updated ecological mitigation proposals; and
- Revisions to include an additional green bridge to be shared with NMUs.

4.1.6. Key opportunities identified as an output from the WCHAR are summarised below in **Figure 4-3**. A larger copy of the plan is included in **Appendix G**. These opportunities have been taken forward and developed as part of the various strands of the Sustainable Transport Strategy explained in the remaining chapters of this report:

Figure 4-3 - WCHAR Opportunities

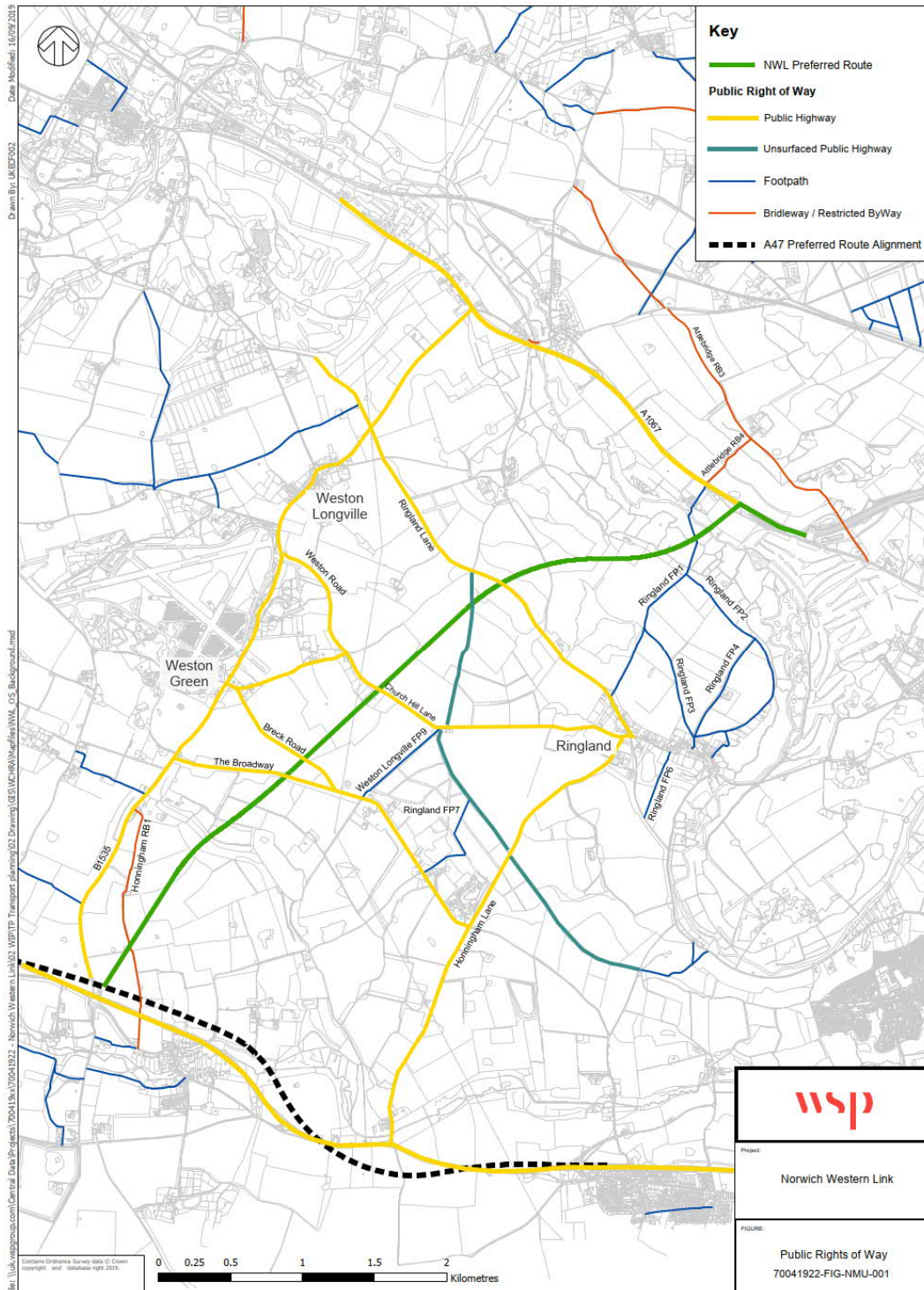


5 NON-MOTORISED USER STRATEGY

5.1 EXISTING CONDITIONS

5.1.1. There are five existing Public Highways and two existing Public Rights of Way which cross the NWL, as shown in **Figure 5-1**:

Figure 5-1 - Existing Public Rights of Way



5.2 BACKGROUND

- 5.2.1. The intention of the NMU (Non-Motorised User) strategy is to offer increased opportunities for recreational walking, cycling and horse riding in the immediate vicinity of the NWL route, as well as improving connectivity of existing Public Rights of Way and encouraging healthy and active travel by non-car modes on trips within shorter distance bands.
- 5.2.2. To inform the development of Non-Motorised User interventions, a Walking, Cycling & Horse Riding Assessment and Review (WCHAR) was undertaken in accordance with DMRB GG142. This guidance is prepared in line with Highways England's Strategic Business Plan and Roads Investment Strategy, as well as the Infrastructure Act 2015. This identified opportunities for improving connectivity and quality of existing Public Rights of Way in the vicinity of the scheme, which are currently fragmented and do not function as a joined-up network. The NMU Strategy proposals associated with the NWL scheme aim to address these issues, seeking to connect up the existing routes and make them more usable whilst also mitigating potential severance issues caused by the provision of a new Highway link which crosses several existing roads and PROWs.
- 5.2.3. Working with local transport stakeholders and the established Local Liaison Group to help generate ideas, initial options for enhancing Non-Motorised User provision were discussed and developed via a series of workshops. Key themes emerging from the workshops highlighted a desire to avoid closing existing Public Rights of Way (PROWs) but it was recognised that some localised diversions would be necessary, and this may also be helpful in joining up the scheme with existing PROWs and responding to the NWL highway design.
- 5.2.4. Connecting nearby rural communities such as Ringland and Weston Longville who share local facilities was also a key focus. The NMU strategy was initially developed with the intention of preserving existing access, so all existing roads that cross the scheme were initially designed to be grade separated crossings, open to all users. However, this principle was challenged by the local communities living close to the scheme and a revised approach was requested with all existing roads closed to vehicles to minimise opportunities for rat running through the nearby villages. In response to this feedback, the approach was tested through the local access consultation in Summer 2020.
- 5.2.5. In addition to dealing with severance issues, the proposed NMU strategy also assists with joining up what was found through the WCHAR process to be an existing but fragmented local PROW network with limited coverage and in some cases poor connectivity to existing settlements. There are two existing PROWs which cross the scheme – Ringland Footpath FP1 in the north which passes under the future viaduct and Honingham Restricted Byway RB1 at the southern end of the route.
- 5.2.6. In the north of the NWL route the existing FP1 was able to remain unchanged post construction with the route passing under the proposed NWL viaduct. This path was observed to be in low usage currently and was away from potential desire lines from the nearest settlements of Ringland and Weston Longville towards existing key facilities that NMUs would potentially wish to access. It was recognised that any improvement works to the existing FP1 surfacing and its bridge crossing the River Wensum SAC would have potential significant ecological effects on the habitats within the SAC. The extent of height clearance required to overcome this issue would also potentially lead to the introduction of ramps and steps which would increase visual intrusion and inconvenience to users.

- 5.2.7. It was also noted that existing highway bridges that cross the River Wensum elsewhere (for example in Ringland village) would have low traffic and were more closely aligned with people's desire lines for cycling to key facilities. It was therefore agreed with stakeholders (including the NCC Public Rights of Way officers) that there would be no changes to FP1 as part of the NWL scheme and no provision would be made for NMUs within the viaduct design as this would widen the structure and increase shadowing over the SAC. However, new maintenance tracks alongside the viaduct would improve connections to FP1. The proposed maintenance tracks are within the scheme footprint and do not cross the River Wensum SAC.

5.3 EVIDENCE BASE AND ENGAGEMENT

- 5.3.1. The Strategy considers the relevant policy and design guidance at both the national and local level, in particular DMRB guidance GG142, which informed the WCHAR process, and more recently LTN 1/20.
- 5.3.2. Traffic surveys and public / stakeholder engagement were carried out to ensure the scheme is incorporating the key elements considered important in the overall scheme design. The traffic surveys showed that the roads crossed by the NWL have low existing flows, so the impact of closure would not be detrimental to the operation of the highway network.
- 5.3.3. Engagement specifically on NMU design aspects has included meetings and workshops with the following:
- Local Liaison Group (Parish Council Representatives);
 - NMU Stakeholder Workers;
 - Local Access Forum & Public Rights of Way Sub-Group;
 - County and District Council Members;
 - Norfolk County Council Officers;
 - Highways England; and
 - Environmental Groups.
- 5.3.4. At the southern end of the NWL route, work was completed jointly with Highways England to develop a diversion route for an existing Restricted Byway (Honingham RB1) which would be severed by both the NWL and A47. Site visits and surveys carried out to inform the WCHAR Assessment noted that the existing route was of poor quality, not well connected to Wood Lane or Honingham village and was not in regular use due to existing severance issues caused by an at-grade crossing of the A47.
- 5.3.5. It became clear that an improved route could be provided that connects Honingham with Weston Green more effectively. Working with adjacent landowners, a new route for RB1 was agreed following the east side of NWL, connecting The Broadway green bridge to Honingham Village via a new underpass of A47 to be provided by Highways England as part of their North Tuddenham to Easton dualling scheme.

5.4 GUIDING PRINCIPLES

5.4.1. The engagement process resulted in the development of a set of guiding principles, the Strategy has been formulated with these in mind:

- Aim to retain and enhance PROWs where possible;
- Diversion routes to be kept at a reasonable length and development in accordance with the DfT guidance [CD143];
- Seek to improve surfacing and accessibility where possible aligned with Sustrans and British Horse Society guidance. Where possible the Sustrans Traffic-free routes and greenways design guidance (November 2019) should be used to inform design for shared-used cyclists, pedestrian and equestrian facilities;
- Avoid or minimise disturbance to adjacent landowners and farm operations;
- Proposed maintenance tracks can be utilised as new links between PROWs and local roads;
- Where minor roads or private accommodation routes to be retained cross the NWL, bridges or underpasses will be provided where practicable for use by NMUs and equestrians;
- Around the A47 junction, the design and development of NMU routes should be coordinated with Highways England to create a joined-up strategy;
- Landscaping proposals will take into account security of footpath users, particularly in remote rural areas, promoting enjoyment of routes where possible with appropriate landscape mitigation where possible with appropriate landscape mitigation where routes pass close to noisy edges of the project or A47 routes; and
- Wayfinding and signage should be provided in accordance with Sustrans guidance.

5.5 LOCAL ACCESS CONSULTATION

5.5.1. The Local Access Consultation was held between July and September 2020 to seek feedback from the public on proposals for Public Rights of Way diversions and extensions, and the treatment of existing routes which cross the Norwich Western Link alignment.

5.5.2. The proposals for the Non-Motorised User Strategy as consulted are shown in **Figure 2-10** and relevant brochure extracts are enclosed in **Appendix A**. This excluded highway bridges at Breck Road and Church Hill Lane and proposed that a green bridge for ecological movement and Non-Motorised Users only would be installed at The Broadway. Two options were presented for Ringland Lane – either open to all users or restricted to Non-Motorised Users only.

In addition to the vehicle access changes, new public rights of way and diversions of existing were also proposed around the NWL. The proposals are summarised as follows (from north to south):

- **Options for Ringland Lane - Open to All Traffic or Restricted (Route 6):**
 - Kept open to all traffic, including motor vehicles (as it currently is), with footways installed to improve pedestrian access and connectivity with the wider Public Rights of Way network.
OR
 - Restricted to walkers, cyclists and horse riders at the point where the road crosses the NWL. This means Ringland Lane would become a no-through road to motorised traffic except for vehicle access to adjacent land and property

- **Ringland Public Rights of Way Proposals (Routes 7, 9, 10, 10a, 10b and 11):**
 - A shared footway/cycleway is proposed to the north side of the section of Fakenham Road. This would connect existing Public Rights of Way with the cycleway at Broadland Northway and provide a safe, off carriageway cycling route along the dualled section of the A1067.
 - A new public footpath is proposed alongside the NWL to provide a link to other existing footpaths around Ringland and close to the River Wensum.
 - On the north west side of the NWL, a new section of bridleway would be provided, linking to the hamlet of Weston Green, via a green bridge.
- **Weston Road Proposals (Route 4):**
 - It is proposed to permanently close Weston Road/Church Hill Lane to through traffic between Weston Green Road and Blackbreck Lane. Access would be maintained to properties, businesses and agricultural land with access restrictions at either end.
- **Weston Road PROW proposals (Route 5):**
 - Weston Green Road would be promoted as a shared space between vehicles and other road users with appropriate speed limits and signage
 - A section of an existing track (known as Blackbreck Lane) would be diverted to join Ringland Lane immediately to the east of the Norwich Western Link to prevent it being severed.
 - To the east of NWL an existing public footpath (Weston Longville Footpath 9) would be changed to restricted byway standard so that it can also be used by, amongst others, cyclists and horse riders.
- **Breck Road Proposals (Route 3):**
 - It is proposed to close Breck Road to through traffic where it crosses the Norwich Western Link route, with access maintained to properties, businesses and agricultural land and provide a link to The Broadway.
- **The Broadway Proposals (Route 2):**
 - It is proposed to close The Broadway to motorised through traffic (with a traffic restriction to allow property access only). A green bridge would be installed over the Norwich Western Link.
- **The Broadway and Breck Road PROW Proposals (Routes 1a, 1b and 8):**
 - The green bridge would create an environmental crossing for bats and other species, as well as pedestrians, cyclists and horse riders.
 - A new short section of restricted byway would be created along the west side of the Norwich Western Link, connecting Breck Road to The Broadway for pedestrians, cyclists and equestrians.
 - To the south of The Broadway, Honingham Restricted Byway RB1 would be removed between Wood Lane and the former A47 and replaced with a new section of restricted byway along the east side of the Norwich Western Link. This route would provide connectivity from The Broadway to a new underpass crossing of the A47 proposed by Highways England.

5.5.3. Feedback on the proposals indicated good levels of support for the proposals in general.

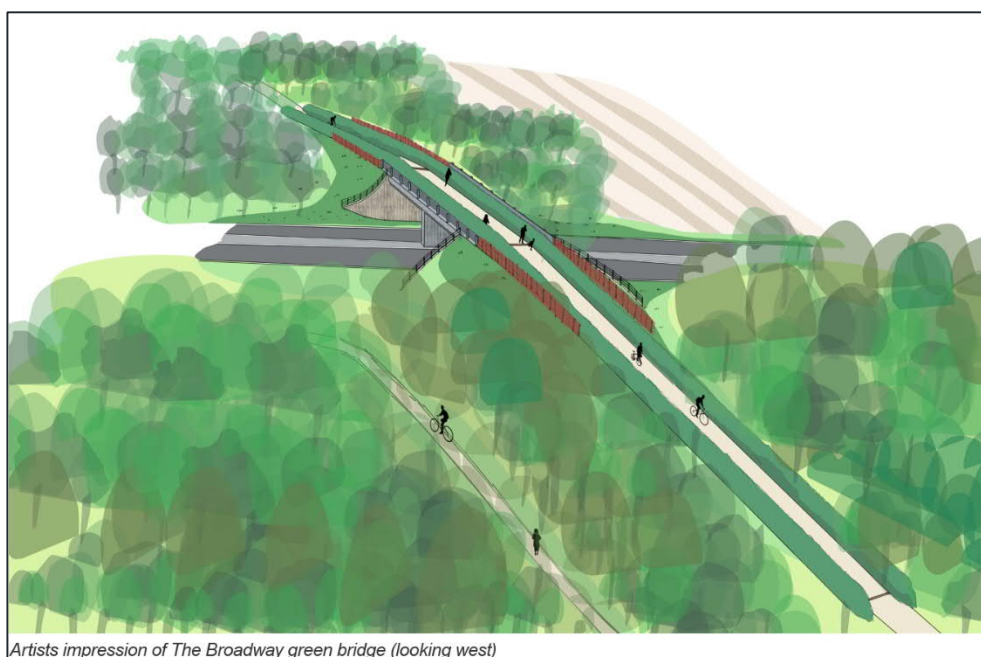
5.6 FURTHER WORK COMPLETED SINCE JULY 2020

- 5.6.1. The strategy has been further developed in response to the feedback from the Local Access Consultation and to align the strategy with the latest engineering proposals being priced for competitive tender. The most significant change is the inclusion of an extra NMU crossing between Weston Road and Ringland Lane.
- 5.6.2. This new route crosses the NWL via an additional green bridge which is required for ecology mitigation. The requirement for the bridge has been informed by bat surveys that the ecology team have undertaken in 2019 and in 2020. The proposed bridleway route to the west of NWL is now shown diverted over the bridge to connect with Blackbreck Lane (unsurfaced public highway) to the east of the NWL.
- 5.6.3. Minor amendments have also been made to the RB1 connection to The Broadway green bridge to minimise ecological effects on an area of woodland to the south of The Broadway – this is now instead routed to the north, passing under the bridge alongside NWL.
- 5.6.4. The scheme plans have also been updated to acknowledge the latest emerging (December 2020) Highways England proposals for the A47 North Tuddenham to Easton dualling scheme, prior to their DCO submission. The updated strategy is shown in **Appendix E**

5.7 GREEN BRIDGES FOR ECOLOGY AND NON-MOTORISED USERS

- 5.7.1. The Local Access Consultation gave people an early look at the proposals for ecological mitigation, including visualisations of a potential indicative green bridge design that could be shared with Non-Motorised Users. This would not only mitigate ecological effects of the scheme but would also provide an attractive vegetated route crossing the NWL for pedestrians, cyclists and horse riders that is grade separated and segregated from motor vehicles (with the exception of a small number of permitted agricultural vehicles). An extract of the imagery used in the consultation is shown in **Figure 5-2**.

Figure 5-2 - The Broadway potential green bridge design



5.8 PROPOSED STRATEGY

- 5.8.1. The proposed Strategy includes a mix of over bridges and underpasses to provide grade separated crossings of the NWL dual carriageway, and either on or off site mitigation in the area surrounding the NWL. To enable the PROW network to be preserved and enhanced as part of the scheme.
- 5.8.2. The NMU Strategy Plan is included in **Appendix E** and the proposals are explained in more detail below.

Route 1a: Honingham Pedestrian / Cycle link

- Provision of a shared pedestrian/cycleway linking Honingham village centre to the old A47 and Honingham Restricted Byway 1. The route begins at The Street in the centre of Honingham, with a pedestrian and cycle path passing the village hall, linking to the old A47 to create a non-motorised user link to further onward routes.

Route 1b: Honingham Restricted Byway 1

- Route 1b is intended to mitigate severance of the existing Honingham RB1 a consequence of both the proposed A47 and Project works. Route 1b comprises the creation of a new diversionary route linking Route 1A and the old A47 to the south, with The Broadway to the north. Where the route crosses the new A47, an underpass will be constructed to allow safe passage of users, shared with private access to Easton Estate. The new route will closely follow the Project along the highway boundary to minimise the extent of land take, with adequate separation from the highway to minimise disturbance to users of the new route. To the north, this route will connect with The Broadway, with onward connection to Weston Green and Ringland.
- Public access rights over the remnants of the original Honingham RB1 north of the former A47 will be extinguished.

Route 2: The Broadway (Public Highway)

- This route requires the implementation of a Traffic Regulation Order (TRO) to prohibit motor vehicles and horse drawn carriages (except for access), to create a tranquil green lane for NMU access and ecology. The route will benefit from an overbridge crossing the Project to retain access and avoid severance over this route. Although access to motor vehicles will be prohibited, access will be preserved for private vehicles serving private property, including agricultural land holdings. Vehicle gates with the inclusion of an NMU bypass will be introduced to deter unauthorised and indiscriminate access by motor vehicles.

Route 3: Breck Road (Public Highway)

- Breck Road to be closed to all traffic, except for access. The south-east section of Breck Road is to be stopped up and diverted to The Broadway proposed overbridge and designated as a Restricted Byway.

Route 4: Church Hill Lane / Weston Road (Public Highway)

- Church Hill Lane is to be stopped up at the crossing of the NWL and the section of the west of the NWL will be designated as a Bridleway. Users will then be diverted to Route 5 alongside the NWL and over the new green bridge for onward connections towards Ringland and Attlebridge.

Route 5: Blackbreck Lane (unsurfaced highway maintained by Norfolk County Council)

- Blackbreck Lane is an existing unsurfaced public highway provides connectivity between Church Hill Lane and Ringland Lane to the east of the Project. The northern extent of Blackbreck Lane will be severed by the Project, and so a short diversion to the east side of the Project will be created to preserve connectivity with Ringland Lane. The remainder to the north side will be stopped-up, with all rights extinguished.

Route 6: Ringland Lane

- Retention of this route open to all traffic with Ringland Lane crossing under the Project, preserving access to all users. Given the low traffic use on Ringland Lane, we expect the majority of users to use the carriageway, however a reinforced earth trod will be constructed on the south verge, to create an off-highway link between Routes 5 and 10.

Route 7: Ringland FP1 (Public Footpath)

- Retention of this public footpath to preserve access over this pedestrian route. This footpath will pass under the Project's viaduct, and so access will be preserved, however some local disruption may be experienced during construction. The footpath will remain as unmade where it crosses through the floodplain of the Wensum Valley and wetland paddocks to minimise impact on flooding and existing habitats and protected species.

Route 8: Weston Longville Footpath 9

- To improve connectivity with neighbouring PROWs, it is proposed to upgrade Weston Longville Footpath No.9, to the east of the Project to a Restricted Byway with links to The Broadway and Honingham RB1 diversionary route. This will create a continuous link from Honingham to Ringland Lane via Blackbreck Lane. As this route follows an existing agricultural access track comprised of a stoned surface, no changes to the surface construction are proposed.

Route 9: New Bridleway

- Dedication of a new bridleway from Weston Road, along the west of the NWL, crossing at a new green bridge and connecting to Blackbreck Lane.

Route 10: New Public Footpath

- Dedication of a new public footpath over the NWL maintenance track from Ringland Lane, connecting to Route 10a and Route 10b.

Route 10a: New Public Footpath

- Dedication of a new public footpath 'Trod' constructed linking Route 10 and Route 10b with existing Ringland Footpath 1 and 2 to the east.

Route 10b: New Public Footpath

- Dedication of a new public footpath over a proposed maintenance access track to be constructed to serve the Project with access from Ringland Lane to the south and extending to the tie-in with Ringland Footpath No.1 to the north. The existing Ringland Footpath 1 will remain and pass under the viaduct, for onward connections to Route 11.

Route 11: New Pedestrian / Cycle Link

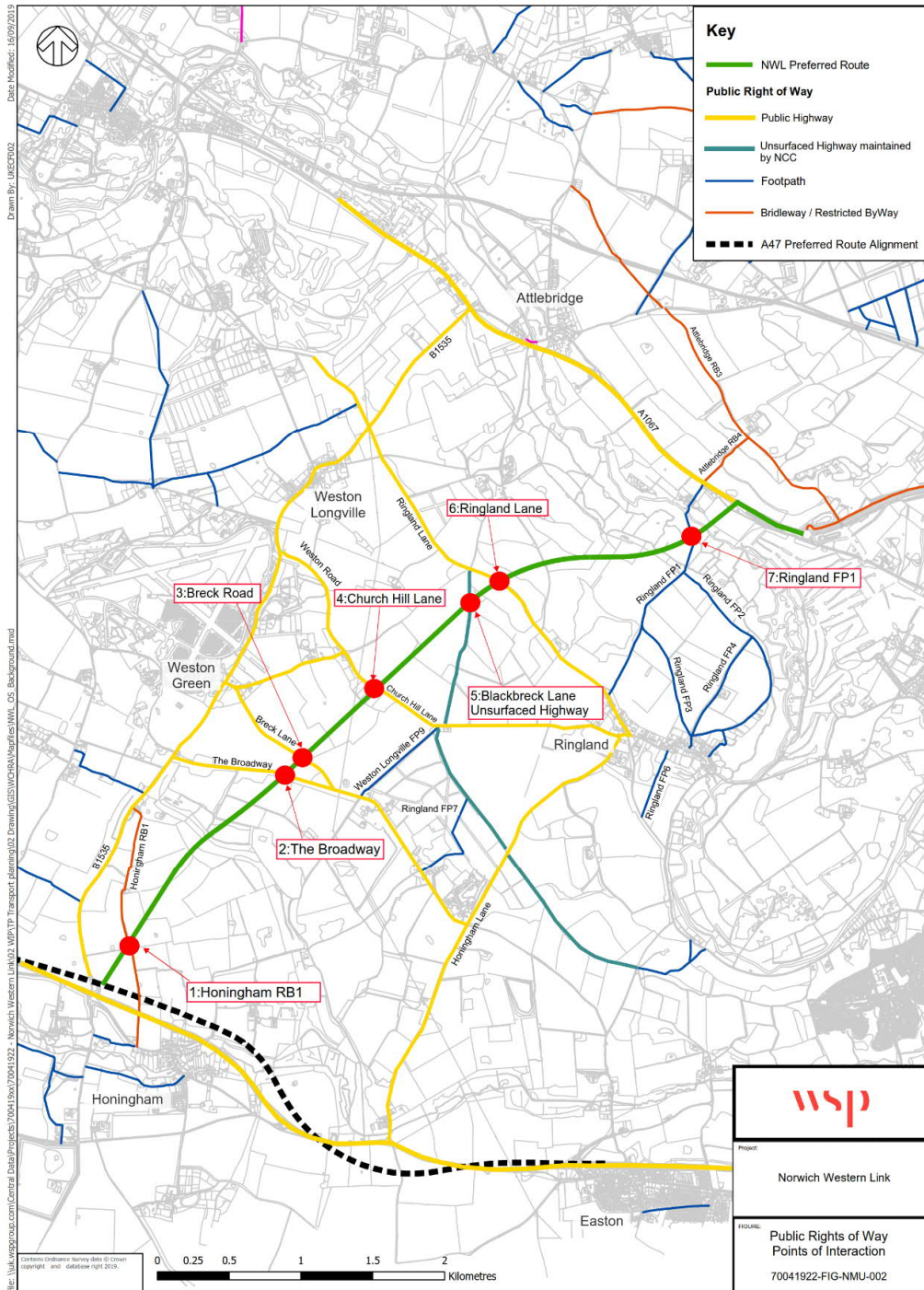
- A new pedestrian / cycle link is proposed to the north of the A1067 Fakenham Road, linking the existing Attlebridge Restricted Byway 4 (RB4) and Bridleway 6 (BR6). The route will create a safe link for users to access existing Public Rights of Way to the north of the Project and the non-motorised infrastructure provision along the Broadland Northway. Existing uncontrolled pedestrian crossing at Fakenham Road/NDR Roundabout will be removed.

6 SIDE ROAD STRATEGY

6.1 EXISTING CONDITIONS

There are five existing Public Highways and two existing Public Rights of Way which cross the NWL, as shown in **Figure 6-1**:

Figure 6-1 - Existing Routes which cross the NWL



6.2 TRAFFIC SURVEYS OCTOBER 2019

- 6.2.1. To understand existing usage of the routes which cross the NWL, traffic surveys were carried out in October 2019 (during school term time). The results for the routes which cross are shown below in **Figure 6-2**. This indicates that existing public highways are in very low usage by motor vehicles with less than 1,000 vehicles per day using all routes in total. Ringland Lane is wider and better quality, so is naturally more well used. This route also links the two parishes of Weston Longville and Ringland. The 2025 Do Something (DS) predicted flows have been added to **Figure 6-2** to show how the usage will change following the construction of the NWL. The DS scenario includes the closure of all side roads, except Ringland Lane, which will remain open.
- 6.2.2. There is also evidence of existing use by Non-Motorised Users with Ringland Lane also being more well used than other routes.

Figure 6-2 - October 2019 Traffic Surveys

Total	Pedal cycle	Equestrian	Motorcycle	Car		LGV, OGV & PSV	Pedestrians – lone adult	Pedestrian – adult with dog	Pedestrian – adult with child	Wheelchair / mobility scooter
				2019 Base	2025 DS					
The Broadway	0	0	0	13	0	6	1	1	0	0
Breck Lane	5	0	0	66	0	13	3	0	0	0
Church Hill Lane	7	3	1	60	0	17	4	1	0	0
Blackbreck Lane	0	1	0	0	0	0	0	1	0	0
Ringland Lane	32	0	2	260	286	63	2	0	0	0

Note: The figures above show the average daily two-way flows over a four-day survey period.

6.3 CONSULTATION FEEDBACK

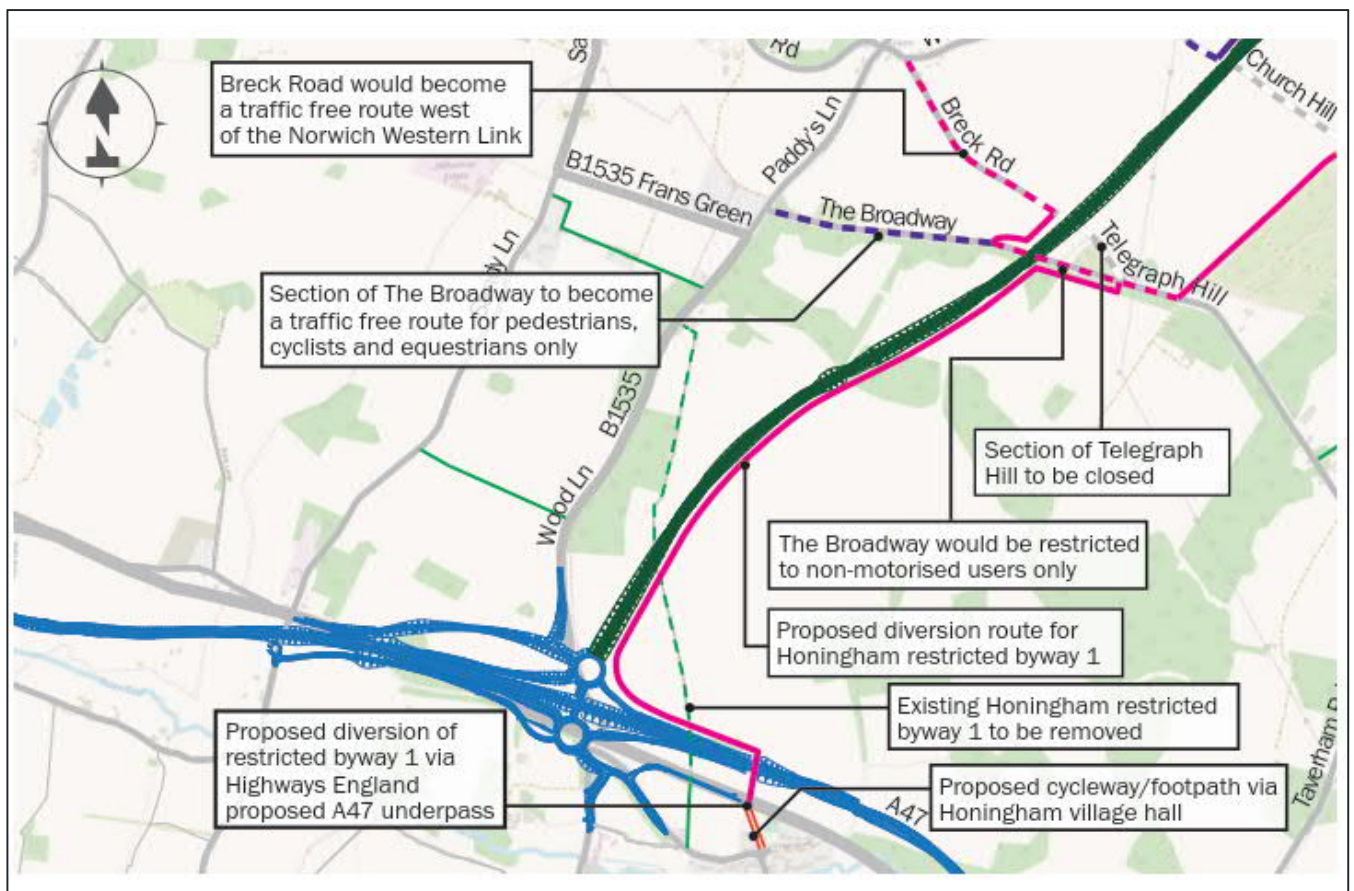
- 6.3.1. As set out in **Appendix A**, the Local Access Consultation proposals in 2020 were generally well received, with good levels of public support evident for the closure of existing public highways that cross the NWL at The Broadway, Breck Road, Weston Road/Church Hill Lane and Blackbreck Lane. These routes are therefore proposed to be stopped up to motor vehicles ('except for access' where local land access is required). Turning facilities will be installed to enable errant users to turn around and where sections of carriageway are no longer required there would be a reduction in highway maintenance costs.
- 6.3.2. Public access rights over the routes retained would be reduced to allow non-motorised users only. Restricted access will be imposed via width restriction features such as gates and bollards.
- 6.3.3. However, it was also evident that it would be practical for one route to remain open to all traffic to facilitate local access between nearby communities (for example Weston Longville and Ringland).

This would enable residents to access key facilities in the two villages such as pubs, shops and village halls, as well as avoiding long diversion routes via A47 or A1067. The feedback from consultation is considered for each route that crosses the NWL below to inform a decision on a preferred option.

6.4 PROPOSALS FOR BRECK ROAD AND THE BROADWAY

6.4.1. **Figure 6-3** shows the Local Access proposals for Breck Road and The Broadway which were identified for consolidation due to geographic proximity with localised Public Rights of Way diversions to connect with a new green bridge which is required for ecological mitigation at The Broadway.

Figure 6-3 - Breck Road and The Broadway Proposals



6.4.2. There were 376 responses to the question **'To what extent do you agree or disagree with the proposal for Breck Road?'**. Over half of respondents (215) strongly agreed/agreed and just over a fifth (78) disagreed/strongly disagreed.

Table 6-1 – Local Access Consultation Feedback on Proposals for Breck Road

Option	Total	Percent
Strongly agree	86	23%
Agree	129	34%
Neither agree nor disagree	83	22%
Disagree	13	4%
Strongly disagree	65	17%

6.4.3. Textual comments received include the following points supporting the proposals:

- Provided access remains for cyclists, and the surface is firm (preferably tarmac)
- It will open up an excellent walking and riding route and coupled with the proposed cycleway alongside the NWL to Honingham make it a pleasant new route.
- Will remove passing traffic and maintain walking and cycling links – good.
- I agree but only on the basis that Ringland Lane stays open. If Ringland Lane is closed to cars then Breck Road should stay open. In other words, one of the 3 roads East / West should be open to local traffic.
- Subject to signage so that Breck Road east doesn't become a dead end for anti-social behaviour or the turning area a nocturnal car parking zone.

6.4.4. Textual comments received opposing the proposals for Breck Road were generally not related to the proposed closure of the highway and were opposing the NWL scheme in principle.

6.4.5. In response to the question ‘**To what extent do you agree or disagree with the proposal for The Broadway?**’ There were 371 responses to this question. Over half of respondents (207) strongly agreed/agreed and just under a fifth (73) disagreed/strongly disagreed.

Table 6-2 - Local Access Consultation Feedback on Proposals for The Broadway

Option	Total	Percent
Strongly agree	81	22%
Agree	126	34%
Neither agree nor disagree	91	26%
Disagree	13	4%
Strongly disagree	60	16%

6.4.6. Textual comments received include the following points:

- My 'strong agreement' with the proposal for the Broadway is conditional on the proposed green bridge properly fulfilling the functions described.
- The above proposals seem sensible in the light of the low car usage, and the benefits to wildlife of the green bridge.
- Sustainable transport please not expensive new roads.
- This 'green bridge' will not reduce the impact on bats.

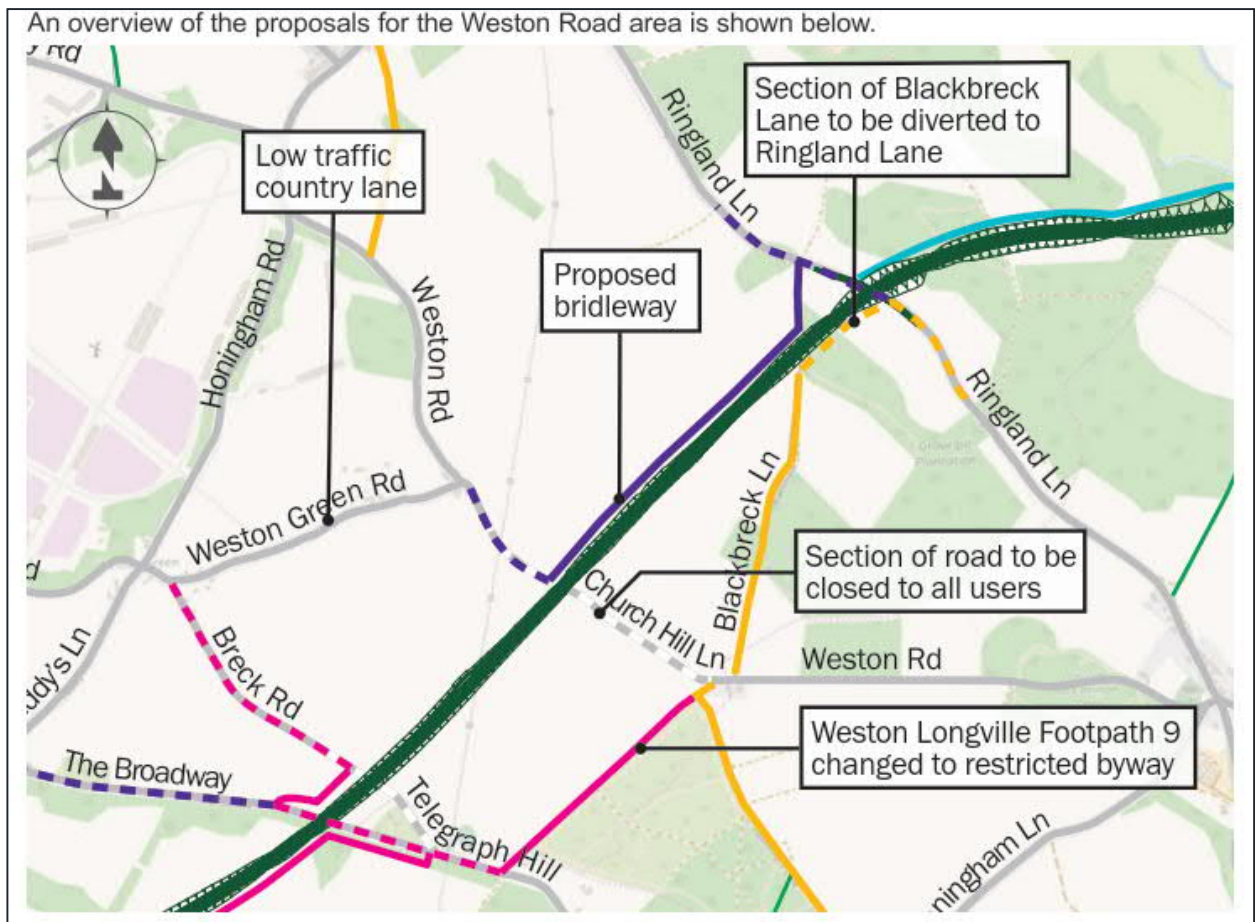
6.4.7. Again, in this case, the negative comments were not related to specific logistical issues or practical reasons for keeping The Broadway open to traffic.

6.4.8. Based on the feedback set out above, it appears there is support evident for the proposed approach of closing The Broadway and Breck Road, with Non-Motorised Users diverted to the proposed green bridge at The Broadway.

6.5 PROPOSALS FOR WESTON ROAD/CHURCH HILL LANE

6.5.1. **Figure 6-4** shows the proposals for Weston Road.

Figure 6-4 - Proposals for Weston Road



6.5.2. When asked **'To what extent do you agree or disagree with the proposal for Weston Road?'** 379 respondents answered this question. About half of the respondents (188) strongly agreed/agreed and just over a quarter (96) disagreed/strongly disagreed.

Table 6-3 - Local Access Consultation Feedback on Proposals for Weston Road

Option	Total	Percent
Strongly agree	83	22%
Agree	105	28%
Neither agree nor disagree	95	25%
Disagree	25	6%
Strongly disagree	71	19%

6.5.3. Textual feedback indicated support for closing Weston Road to through-traffic but various respondents wanted to see a route kept open for Non-Motorised Users in this location:

- This will help reduce traffic and for riding/walking/cycling as other routes are being lost plus it will be much safer for horse riding;
- It will be brilliant to remove motor vehicles from this stretch of road which is used by pedestrians for exercise and dog walking;
- It is right to close Weston Road/Church Hill Lane to through traffic. To the west of the link road it should be a place where pedestrians, cyclists and equestrians can enjoy access without vehicles;
- As long as residents can get to and from home without lots of extra mileage;
- Agree that Weston Road be closed to through motorised traffic. However, there should be access for non-motorised traffic (walkers, riders, cyclists) via a ramped bridge or an underpass;
- Weston Road is already popular with walkers, cyclists and riders creating a much valued natural circular route from Ringland to Weston. Closing the road completely would cut off access for this existing group of users;
- Keeping Weston Road/Church Hill Lane open for non-motorised traffic would significantly reduce the need for the creation of new restricted byways;
- Close Weston Road to motorised traffic;
- The proposals would maintain our walking and cycling links but still maintain existing vehicle access to the A47, Lenwade and the Fakenham Road which is essential for us;
- The proposal will prevent use of the road by cyclists;
- Despite low usage, this is a valuable route for cycling;
- I could not encourage a proposal that reduces pedestrian access;
- Weston Road is needed to provide direct connection from Weston Green to Ringland, certainly for walkers and cyclists;
- Closing this to all road users, completely disconnecting rural communities and destroying local wildlife habitats is unacceptable;
- I use this route frequently to walk and cycle;
- All existing routes should be retained to allow all users the option to take the most fuel and time efficient routes;
- Given the price of fuel and the push to reduce CO2 emissions it is the "Green" option;
- I think this road should be kept open and have its function improved; and
- By using already existing infrastructure we will protect the area's wildlife and environment.

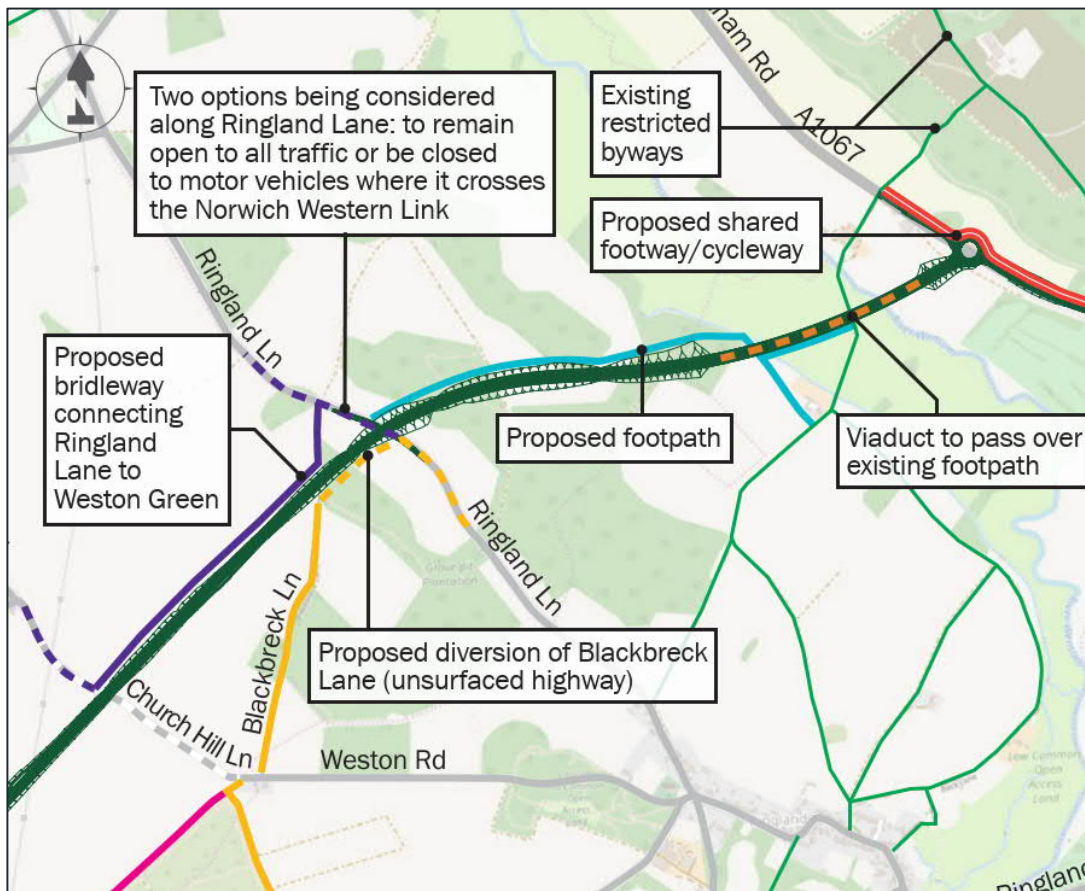
6.6 RINGLAND LANE PROPOSALS

6.6.1. Ringland Lane is a rural road that connects the villages of Ringland and Weston Longville, with the following proposals considered:

- Kept open to all traffic, including motor vehicles (as it currently is), with footways installed to provide to improve pedestrian access and connectivity with the wider Public Rights of Way network;
- OR
- Restricted to walkers, cyclists and horse riders at the point where the road crosses the NWL. This means that Ringland Lane would become a no-through road to motorised traffic except for vehicle access to adjacent lane and property.

6.6.2. **Figure 6-5** shows the proposals for the area around Ringland Lane in order to improve connectivity.

Figure 6-5 - Ringland Lane proposals



6.6.3. The feedback results for Ringland Lane have been explored in more detail as the overall result indicated similar levels of support for keeping this route open to all traffic and closing it to motor vehicles.

Table 6-4 – Ringland Lane Local Resident Feedback and Frequent User Responses

Question	Strongly agree / agree	Disagree / strongly disagree	Total including Neither agree or disagree
To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic? (Daily and Weekly Users only - all postcodes)	51 (48%)	45 (42%)	107 (100%)
To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic? (respondents living within Postcodes NR8 & NR9 only)	40 (48%)	36 (43%)	83 (100%)
To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic? (respondents within Postcodes NR8 & NR9 who used Ringland Lane Daily)	20 (61%)	12 (36%)	33 (100%)

- 6.6.4. The above analysis indicates that of the frequent users there is a more pronounced majority in favour of keeping Ringland Lane open to all traffic, this also remains to be the case when responses are restricted to local residents only from postcode sectors in the immediate vicinity of the NWL works.
- 6.6.5. On review of the textual feedback in response to this question, potential reasons cited for keeping Ringland Lane open to all users and advantages of closing it to motor vehicles were listed as stated in **Table 6-5**.

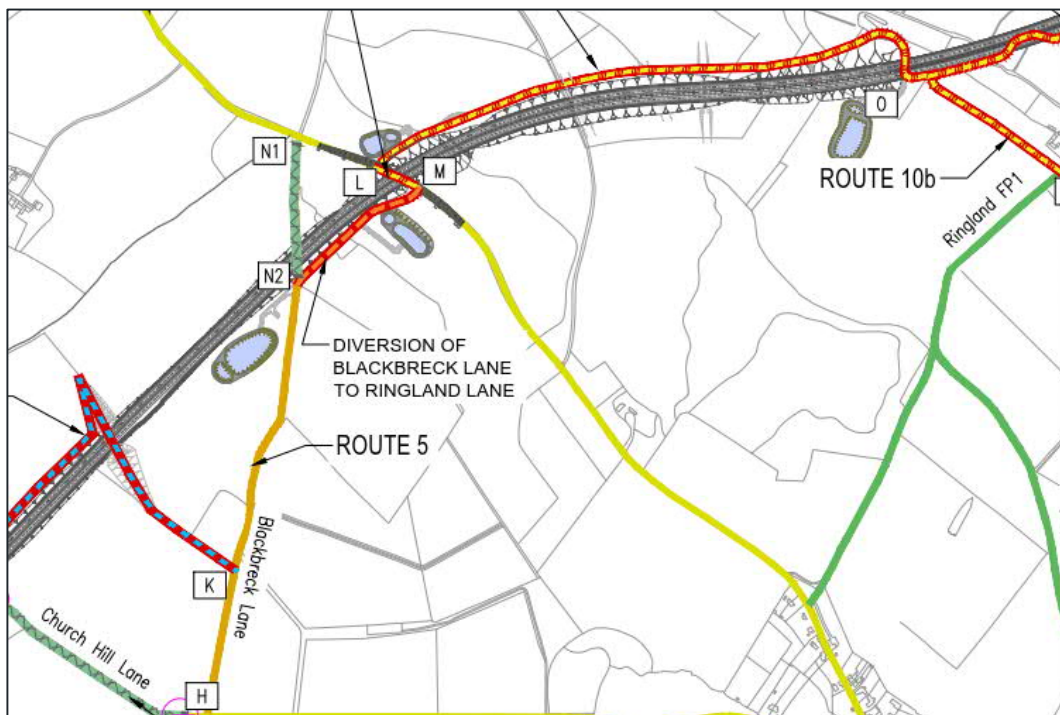
Table 6-5 - Ringland Lane Respondent’s Reasons for Option Preference

Reasons to keep open to all traffic	Reasons for closing to motor vehicles
Maintains connectivity between parishes of Ringland and Weston Longville including access to local facilities for residents either side of NWL (e.g. shop, pub, village hall etc).	Will help prevent rat-running through the village of Ringland (albeit some said they would prefer to avoid closure if Honingham Lane is also closed).
Retains access for farm vehicles, emergency services and refuse vehicles.	Encourages use by cyclists and pedestrians
Minimises diversion length for users of other roads to be closed (Breck Road and Weston Road/Church Hill Lane).	Additional traffic will conflict with frontage development in Ringland making it difficult to exit properties safely
This road is better quality, and more suitable to keep open than other roads that cross NWL	Concern over traffic speeds and volumes if kept open.

6.7 PREFERRED OPTION – RINGLAND LANE OPEN TO ALL TRAFFIC

- 6.7.1. Keeping Ringland Lane open to all traffic would also assist emergency access, refuse servicing and farm vehicle access which, in the context of a rural network, is more appropriate to be retained on the rural roads, rather than diverting these large slow vehicles to the A47 and A1067 strategic routes.
- 6.7.2. Whilst it is recognised that there are local resident concerns about rat running and speed and volume of traffic on Ringland Lane, this route is predicted to carry less than 2,000 vehicle movements per day and already has a signed 30mph speed limit east of Ringland village to Taverham (to the east of NWL).
- 6.7.3. The route was also identified in the shortlist of Options prioritised to become a ‘cycle friendly route’ within the wider Sustainable Transport Strategy. This would involve speed management features being placed every 200m along Ringland Lane enabling this route to operate as a mixed priority route whilst remaining open to all traffic, in accordance with Figure 4.1 in LTN 1/20. A wide range of measures could be implemented at each location and could include painted roundels, interactive signs, road narrowings, horizontal or vertical deflection (chicanes, speed humps/cushions etc), lines and signs to raise awareness of cyclists and influence slower vehicle speeds along the route.

Figure 6-6 - Updated Ringland Lane proposals - Open to All Traffic

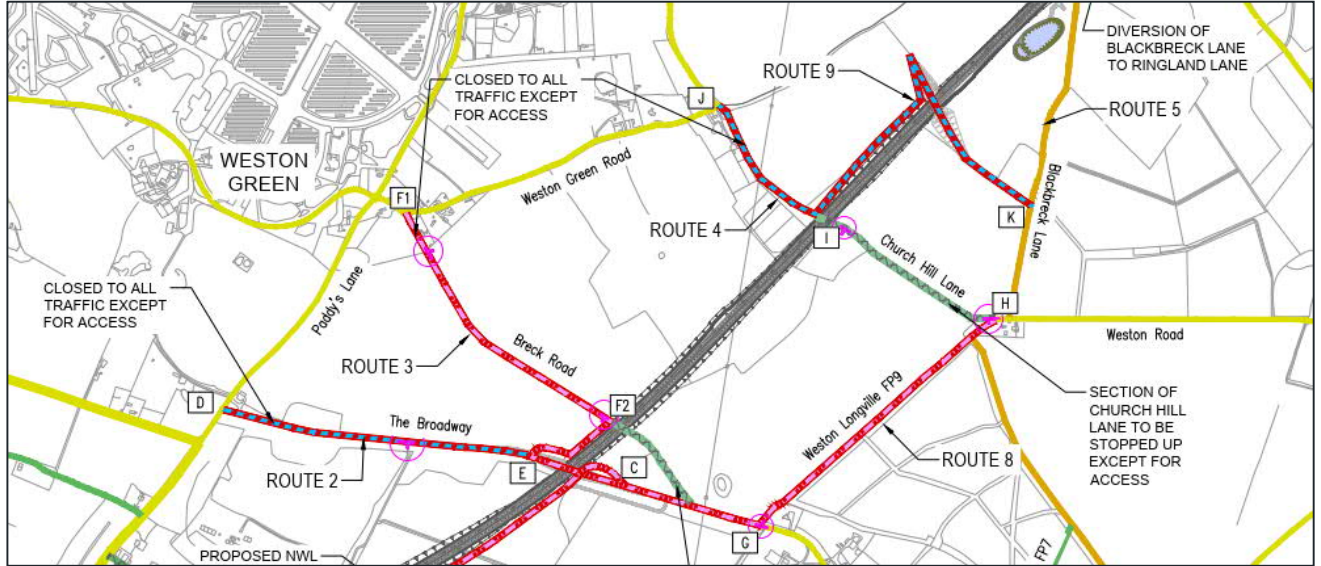


6.8 PREFERRED OPTION – GREEN BRIDGE NORTH OF WESTON ROAD

In response to the feedback in relation to the proposal to close Weston Road/Church Hill Lane to all users and aligned with the ecological mitigation work on the project, an additional green bridge is to be included between Weston Road and Ringland Lane. **Figure 6-7** shows the revised strategy with the additional green bridge. The proposed bridleway route (shown as Route 9) to the west of NWL is

now shown diverted over the bridge to connect with Blackbreck Lane (unsurfaced public highway) to the east of NWL.

Figure 6-7 - Revised NMU Strategy to include an additional green bridge



- 6.8.1. The revised Side Road Strategy will retain access for Non-Motorised Users using Weston Road and Church Hill Lane whilst closing the routes to vehicles where the NWL crosses as originally proposed.

7 PUBLIC TRANSPORT STRATEGY

7.1 EXISTING PUBLIC TRANSPORT CONDITIONS

RAIL

7.1.1. Norwich Railway Station is located approximately 8km south-east of the study area, and to the south-east of the city centre. Norwich is generally well placed on the rail network, with Norwich Railway Station located on the Great Eastern Mainline and served by several secondary railway lines such as the Breckland Line, Bittern Line and Wherry Line. The station is served by two rail operators (Abellio Greater Anglia and East Midlands Railway) providing access to destinations within the Norfolk area as well as further afield. Whilst Norwich Railway Station can be accessed by bus services from Costessey (Queen’s Hills) and Taverham, access to the station by public transport from more rural towns or villages to the west of Norwich is challenging.

BUS AND COACH LINKS

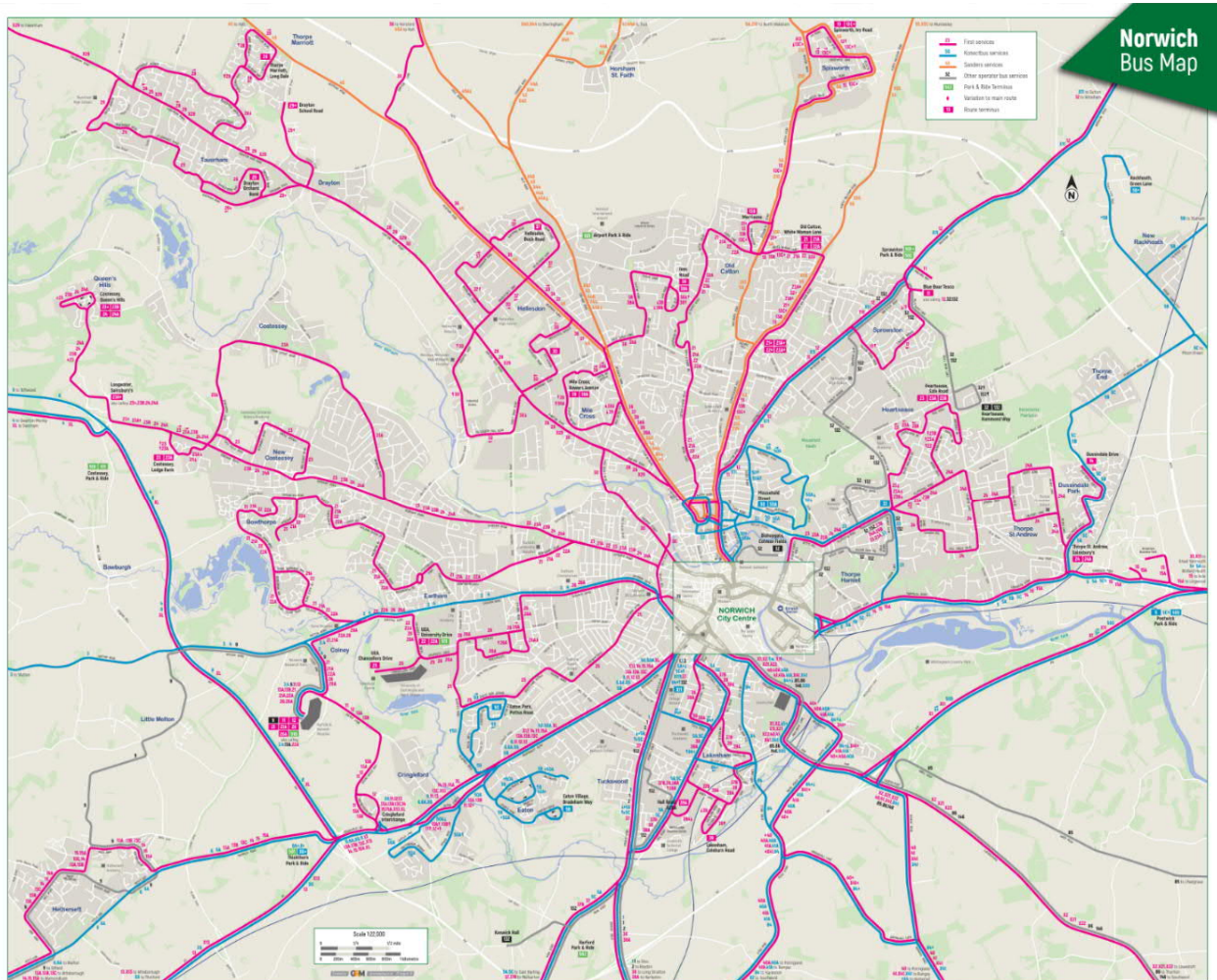
7.1.2. The bus network in the study area is largely radial, providing routes to and from Norwich city centre along key corridors. The eastern part of the study area is well connected with Norwich city centre, particularly during the day. First Bus provides several services connecting Queen’s Hills, Costessey, Easton, Hellesdon and Taverham with destinations within and around Norwich city centre as shown in **Figure 7-1**. Bus services also operate within the study area, connecting residential areas to major employment sites. There is, however, a lack of traditional bus services within the identified gap to the west of Norwich, including Weston Longville, Weston Green and Ringland.

Table 7-1 - Typical weekday bus timetable for NWQ

Service	Route	Operator	Frequency
4, 4A	Norwich to Swanton Morley	KonectBus	1 per hour
8 Fast	Norwich to Toftwood	KonectBus	2 per hour
Yellow (28 & 29)	Norwich to Thorpe Marriott	First Bus	1-4 per hour
Purple (36, 37, 38 & 39)	Long Stratton to Horsford (via Norwich City Centre)	First Bus	Up to 4 per hour
Red (23 & 24)	Queens Hills / Costessey to Heartsease / Thorpe St Andrew (via Norwich City Centre & Rail Station)	First Bus	Up to 4 per hour
510	Costessey Park & Ride to Norfolk and Norwich University Hospital	KonectBus	Up to 2 per hour
Excel (A, B & C)	Norwich to King’s Lynn	First Bus	2 per hour
X29	Norwich to Fakenham	First Bus	1 per hour
56	Sheringham – Easton College (via Holt)	Sanders Coaches	1 per day, Monday - Friday

7.1.3. **Table 7-1** shows the bus services connecting the NWQ to the north and east of Norfolk, Norwich city centre and locations to the north and east of Norwich. While First Bus offers regular services connecting settlements within the study area with King’s Lynn and Swaffham via Easton, Hockering, and Dereham, connecting services to Holt and Cromer are more limited, with Holt being connected via a single school bus – open to the public – and operated by Sanders Coaches Monday to Friday.

Figure 7-1 – Existing Bus Service Routes



Source: Norwich City-Wide Network Map (First Bus)

7.1.4. There are bus stops located on the radial routes into central Norwich (i.e. A1067 and A47). These are within walking distance from a small catchment of residential dwellings. There is limited pedestrian access between villages and bus stops, so access on foot from some hamlets and rural villages is less viable. However, due to the sparsely distributed rural nature of the study area, it is not expected that every dwelling would have a bus stop within 400m as is typically sought in densely populated urban areas. The majority of dwellings in the less dense areas are beyond walking distance of the radial routes currently served. Despite this, diverting bus services away from the main arterial corridors has been tried previously and led to increased journey times and patronage reductions. Therefore, the emphasis for developing a viable bus strategy has naturally focussed upon the areas in the western urban fringe of Norwich which have more dense population catchments.

PARK & RIDE

- 7.1.5. Currently, there are six Park & Ride sites located around Norwich, providing a total of almost 5,000 parking spaces on the urban fringe. Of the six sites, five serve the city centre, as shown in **Figure 7-2**.
- 7.1.6. The Costessey Park & Ride is located within the NWQ study area (south-eastern section), next to the Royal Norfolk Showground. This only serves Norfolk and Norwich University Hospital (NNUH) and the University of East Anglia (UEA). Residents of western Norwich or users arriving from the west would need to use Thickthorn Park & Ride or the airport Park & Ride sites to access the city centre. The latter results in journeys across the study area.
- 7.1.7. While there are no plans for additional Park & Ride sites, expansions to the Thickthorn Park & Ride were proposed as part of the Transforming Cities programme. Should funding be allocated, the Thickthorn Park & Ride site is to be expanded to provide around 400 additional parking spaces.
- 7.1.8. First Eastern Counties, who provide around 80% of the bus services in Greater Norwich, are committing £18m of investment in new buses, refurbished buses and increased service frequencies as part of the Transforming Cities programme. Recent investment by First saw the introduction of new, high specification buses on the Excel service operating from west Norfolk into Norwich, with fast, limited stop services and up to three buses per hour from Dereham.
- 7.1.9. Discussions are also in progress with Norwich Research Park to provide a new bus service from Thickthorn P&R site to the NRP, which would be in addition to the existing service to the city centre.

Figure 7-2 - Park & Ride routes and locations



Source: Network Map (Park & Ride Norwich)

- 7.1.10. Further transport intervention in the NWQ would improve strategic connectivity to the existing Park & Ride sites, catering for desire lines through the study area and making sustainable travel to central Norwich more convenient and efficient.

7.2 TRANSPORT FOR NORWICH STRATEGY UPDATE SURVEY 2018

- 7.2.1. A survey was carried out by NCC in 2018 to seek views on local transport issues and suggestions for improving the local network as part of the Transport for Norwich Project. The survey consisted of a short questionnaire to find out how people travel around Norwich and what their priorities are for the city's transport in the future. The survey ran between 15th January and 22nd March 2018 alongside the Greater Norwich Local Plan (GNLP) consultation.
- 7.2.2. Results from the Transport for Norwich strategy review survey show that the top priority for people in the area is investment in public transport. Nearly 90% of those who took part rated it as "important" or "very important" while 52% included it in their overall top three priorities.
- 7.2.3. The second priority identified was putting in place measures to tackle congestion, which came in just behind, with 87% rating it as "important" or "very important" and 47% putting it in their top three priorities.
- 7.2.4. The responses relating to priorities for investment in bus services have been mapped for those who supplied their home postcode in the survey. The results are shown in **Figure 7-3** and **Figure 7-4** below. This shows that residents in the Norwich urban area and urban fringe place a high priority on investment in public transport.
- 7.2.5. The responses have been filtered by postcode and textual comments have been reviewed to understand feedback on bus services from the urban fringe of the Norwich western link study area.
- 7.2.6. There were 254 responses from postcodes NR4, NR5, NR6 and NR8 - key themes are summarised below:
- Public transport needs joining up - co-ordinate timetables and routes
 - Price of tickets is more expensive than travelling by car, especially for families and groups
 - Travelling into the city centre and changing buses is inefficient
 - No public transport connection to the Airport
 - Bus services are not cheap and often unreliable
 - Need better evening bus frequency
 - Need more flexible ticketing (rather than one ticket for one bus ride)
 - Too much emphasis has been placed on cycling in recent years – investment in better bus services would be helpful to a more diverse range of people and buses are good in all weathers
 - Improve options for Student bus fares
 - Avoid a monopoly of service provision from one main operator
 - Bus stops need improving. Electronic displays are often unreliable
 - Consider access for elderly and disabled people who can't often walk far to get a bus
 - Encourage more people to use park and ride instead of city centre car parks
 - Journey times often inefficient – takes 2 hours to get to work by bus as I need to change buses
 - Need to consider cost of city centre parking to make buses more competitive with car.
- 7.2.7. Overall, within the western urban fringe of Norwich, 221 respondents (87%) thought that improving the bus network was either Important or Very Important. Hence it is expected that the NWL bus strategy would be welcomed and well supported by local residents.

Figure 7-3 - TfN Update Survey Feedback - Bus Service Investment

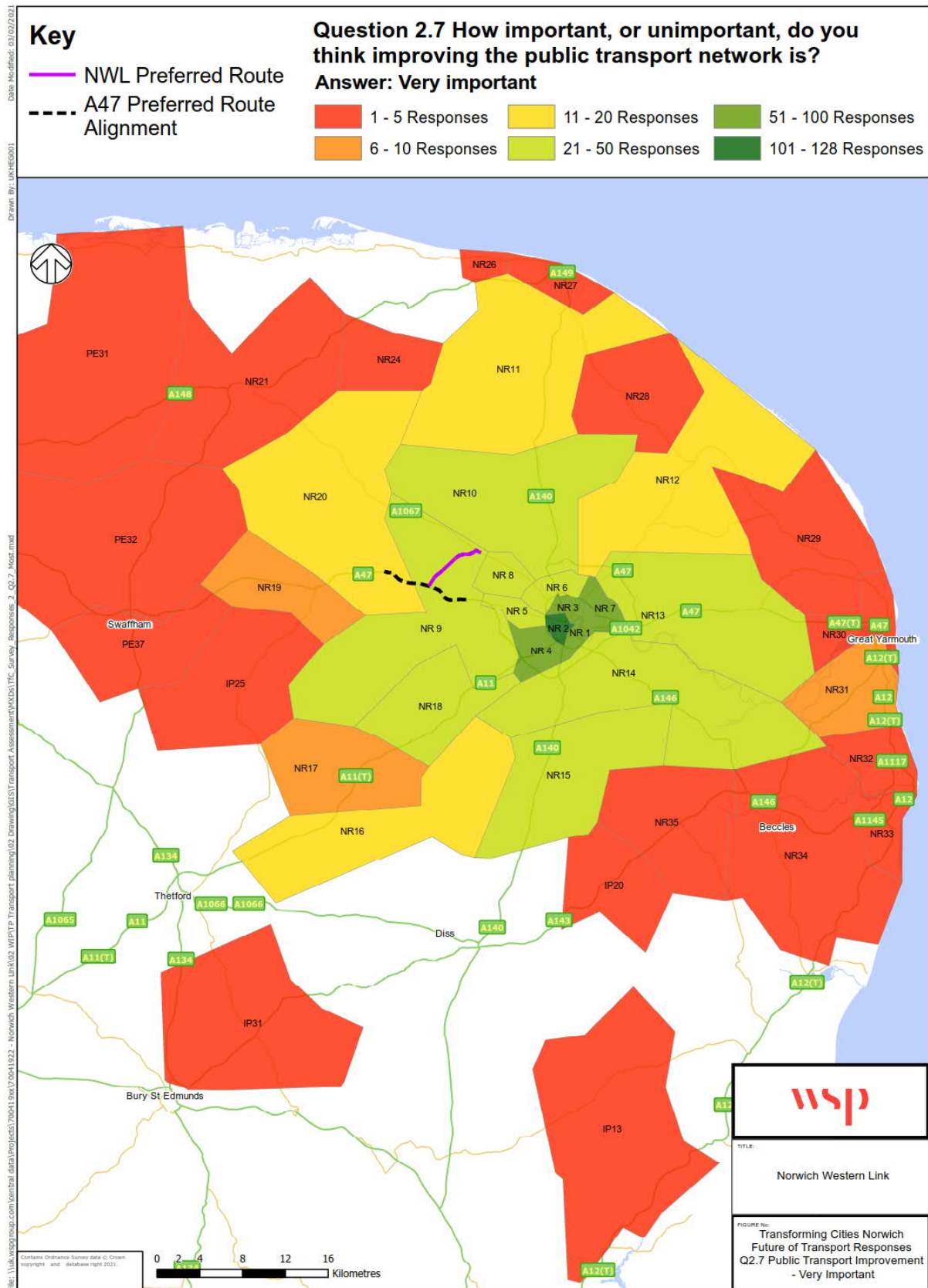
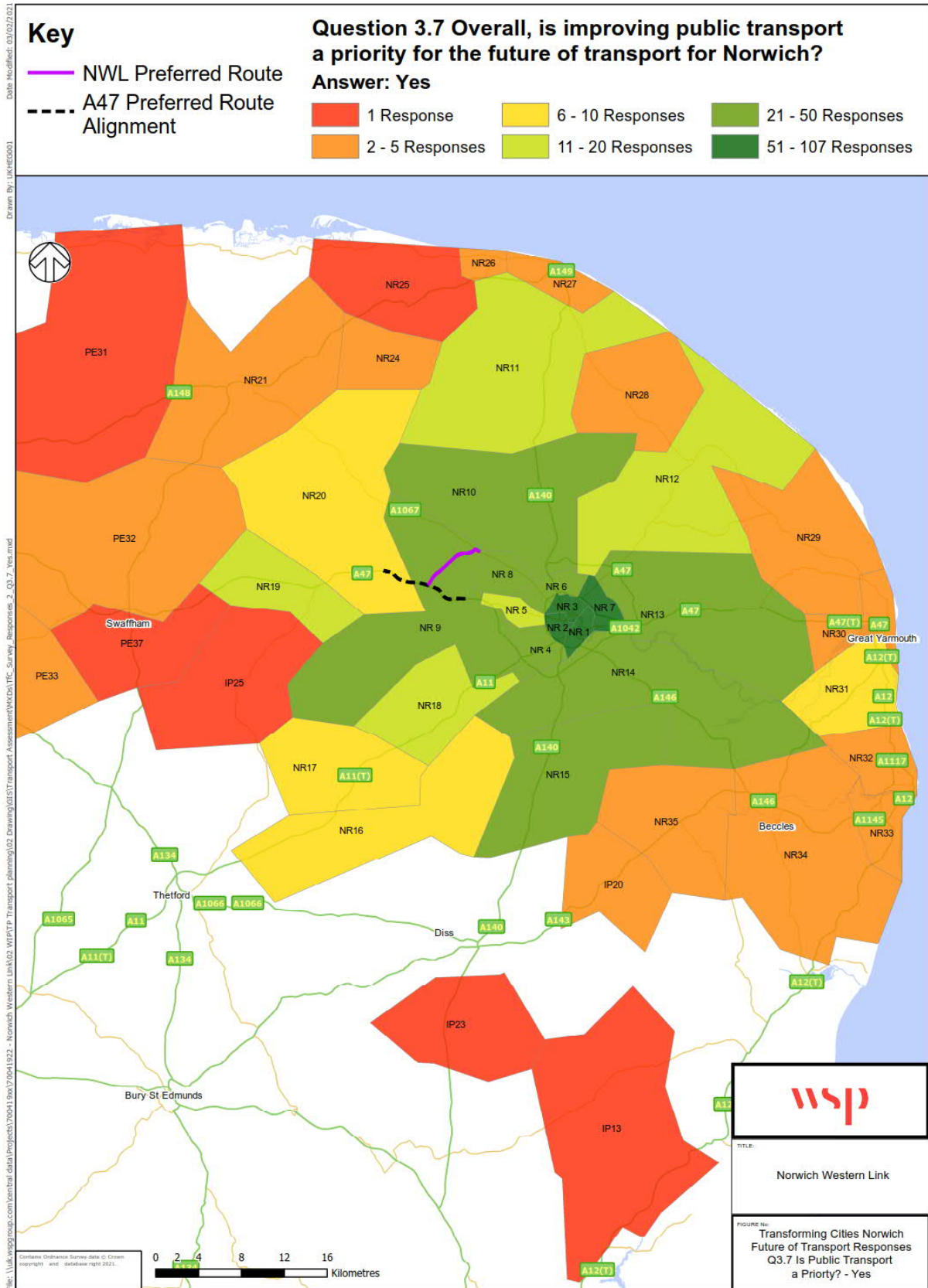


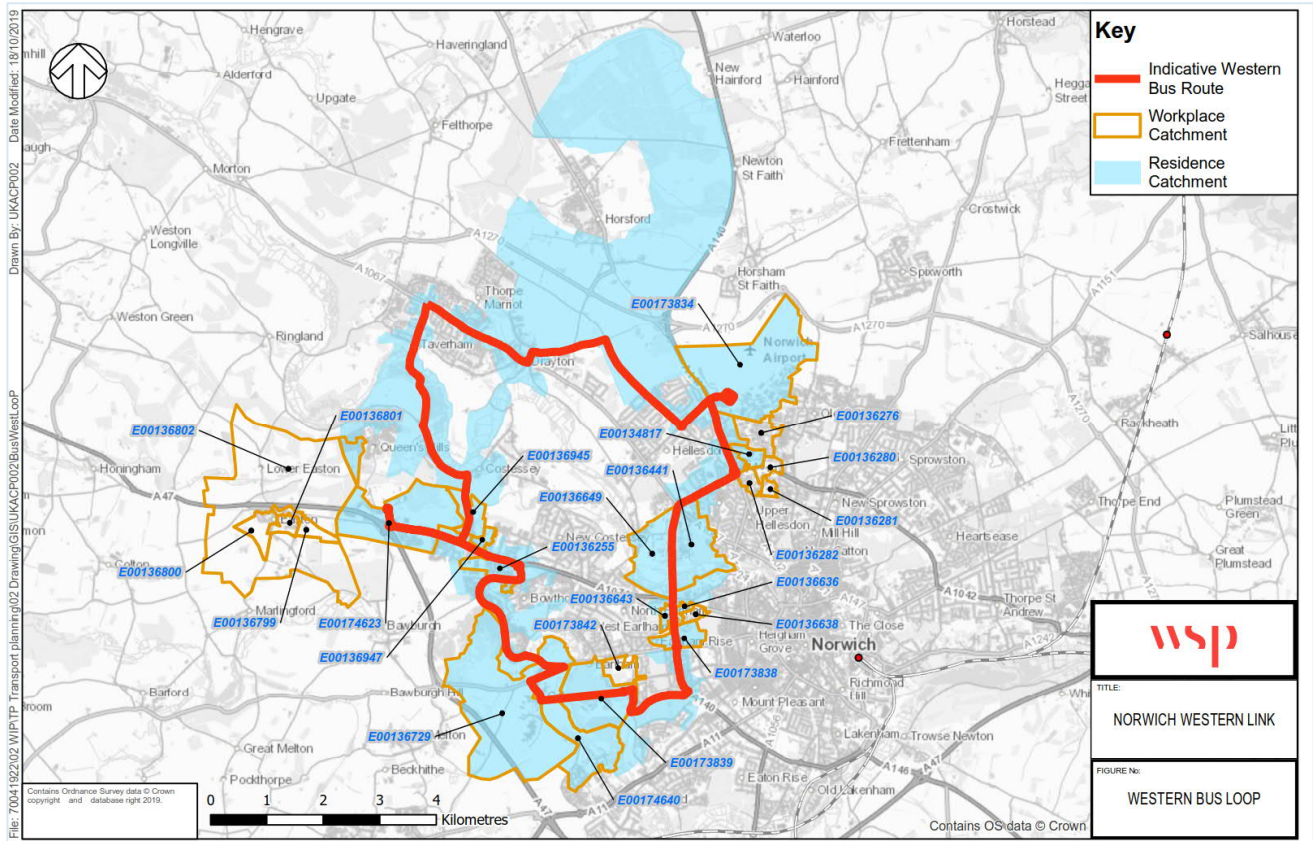
Figure 7-4 - TfN Update Survey Feedback - Bus Service Investment



7.3 DEVELOPING A BUS STRATEGY

- 7.3.1. In relation to public transport, the need for commercial viability of services is noted as the key driver for bus operators, with bus companies attracted to routes which have higher density development alongside to maximise patronage and viability. Since the NWL is located away from residential dwellings, and not coupled directly with new development, it is unlikely that the NWL route itself would support new local bus service routes directly.
- 7.3.2. The NWL scheme is also envisaged to support important existing bus services such as the X29/29 service from the North West of the County by intercepting some of the traffic that currently uses Fakenham Road and road routes parallel with the NWL such as the outer ring road. This would potentially assist with improving bus journey time reliability on existing routes by freeing up road space and capacity on the western edge of the City. Coupled with the A47 dualling scheme from North Tuddenham to Easton and removal of existing roundabouts on A47, the two schemes would also assist with speeding up bus journey times for 23/23A and 24 which operate on A1074 Dereham Road. With improved reliability, existing services would be more likely to attract patronage and investment, leading to improved frequency.
- 7.3.3. However, with the NWL providing traffic relief to the nearby existing route between Taverham and Costessey which connects a more densely populated area, there was identified to be scope for a potential viable bus service.
- 7.3.4. It was also noted, via a review of existing bus service routes that there was a gap in service provision between residential areas in the north western fringe of Norwich (such as Taverham, Drayton, Queens Hills, Costessey) and employment areas in the south west (including Norwich Research Park/UEA and Norfolk and Norwich University Hospital). Residents of Taverham and Thorpe Marriott travelling to the Norfolk and Norwich University Hospital (NNUH) by public transport currently have to catch two buses, changing in the city centre and involving journey times from the centre of Taverham of between 56 and 65 minutes.
- 7.3.5. A route linking the Hospital to Thorpe Marriott had first been considered in the initial 2014 study carried out by Mott MacDonald and the concept of an orbital bus route had also been suggested by local residents in response to the summer 2018 consultation. This option would offer significant journey time savings for public transport trips to the NNUH and NRP, from the north-western suburbs of Norwich. The option would also facilitate the delivery of forthcoming housing allocations for example 1,400 homes allocated in Taverham.
- 7.3.6. Engagement with local bus operators, Konectbus and First Bus, was undertaken to ensure that any improvements proposed would be appropriate and supported. An initial loop service was developed and discussed with operators at a Sustainable transport workshop in January 2020. The original loop option was reviewed against census data to understand the potential catchment it might serve. The routing considered in the early stage high level review is shown below.

Figure 7-5 - Initial Western Loop Bus Option Catchment



- 7.3.7. However, following timetable testing by Konectbus operators raised concerns that the loop would take more than an hour to traverse by bus, so would require more than one bus to operate an hourly service and an orbital loop route may not be sufficiently attractive to passengers.
- 7.3.8. Further discussions were subsequently held with bus operators Konectbus and First, which led to two sub-loop options emerging. Both options were taken forward to public consultation in July 2020 as part of the Local Access proposals. The two potential route options presented for consultation in 2020 were:
- Western Arc Bus Service Option A – Thorpe Marriott to NNUH via Longwater
 - Western Arc Bus Service Option B – Thorpe Marriott to NNUH via Outer Ring Road.
- 7.3.9. The two ‘Western Arc’ bus route options are shown in **Figure 7-6**.
- 7.3.10. To accompany the new western arc service, it is proposed that facilities at bus stops on the A1067 Fakenham Road are improved and along the rest of the route, such as raised kerbs, shelters and electronic display boards to help make bus services more attractive to users.
- 7.3.11. Bus journey times are likely to improve with the NWL in place and congestion reduced on the existing road network. As a result, it may be viable for a bus operator to provide a ‘Western Arc’ service through the more densely populated suburbs of Norwich. The route would connect communities to shops, medical facilities and employment areas (for example the University of East Anglia, Norfolk and Norwich University Hospital and Norwich Research Park) without the need to travel into central Norwich to change buses.

Figure 7-6 - Proposed Western Arc Service route alignment



7.4 LOCAL ACCESS CONSULTATION FEEDBACK

7.4.1. There were 348 responses to the question: ‘Of the two options shown for a potential Western Arc bus service which, if any, would you be more likely to use?’ Option A was the preferred choice of just over a third of respondents (119) but just under half of respondents wanted neither option A or B (162). A summary of the quantitative feedback is provided below showing the percentage split between those who selected one of the two options:

Table 7-2 – Local Access Consultation Feedback on ‘Western Arc’ Bus Options

Option	Total	Percent
Option A – Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Taverham, Queen’s Hills, Longwater and Bowthorpe	119	64%
Option B – Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Drayton, Norwich Airport, Hellesdon and Earham	67	36%

7.4.2. There was a high proportion of responses showing no interest in either option but is expected to be related to consultation being predominantly focussed on the geographic area further west, away from the bus service proposals. However, within postcodes covered by the specific bus catchment there was good support for Option A and some support for Option B. The below summary of textual feedback shows positive support for improving bus services as part of the NWL project and commentary provided on the two options:

- The proposed Option B route improves access to Norwich airport;
- Improved bus routes obviating the need to go into the city and out again;
- It would connect places I am more likely to travel to/from and is more accessible for me;
- I need to access at Longwater and Option A enables onward travel to Norwich;
- Option A Covers Longwater which the other one doesn't;
- Option A opens up new links;
- Option A would provide a 'cross county' link across the area which would provide an effective link across the area;
- Would encourage greater use of public transport in the area;
- The proposed route would offer improved access to NNUH (and UEA);
- Option A - If you live anywhere across this region, there is no sensible Bus route to get to the UEA/Hospital;
- Many car journeys could be avoided by having the option A bus route;
- Very helpful to have good bus links to NNUH and UEA. Current services are useless and we do not use them;
- I am in my 70s. If I become unable to drive, Option A would allow me to travel to the shopping area at Easton and to the hospital;
- The proposed route(s) would connect up (more) places currently poorly connected;
- The proposed route would improve access for people in Queens Hills;
- Queens Hill is only has one bus option & this means having to travel into the city & then back out again to get anywhere. Therefore everyone has to rely on their cars;
- A direct route from Queen's Hills to Taverham for residents needs to happen as many children on the estate attend Taverham high school. open the existing not used bus lane;
- Why not combine option A & B and start the journey for option A at the airport? ;
- Option A provides a route not provided now;
- Option B is partly provided by the Horsford Mulbarton service;
- The proposed route improves access to Norwich airport;
- There is a need to improve public transport access to the airport;
- Option B Covers a wider area and would link to Airport park & ride;
- Connecting via the airport is important;
- Improved bus routes obviating the need to go into the city and out again;
- Option B would connect places I am more likely to travel to/from;
- Option B is more accessible for me;
- A bus service from Drayton to UEA and the hospital would be absolutely marvellous;
- I suspect Option B would be a long trip;
- I would prefer Option A if there was a stop near me - can it be extended to Drayton?; and
- An alternative could be a return route for both sides of the loop.

7.5 OPTION DEVELOPMENT SINCE JULY 2020

7.5.1. In August 2020, Konectbus announced that they would be operating a new bus route, service 521, from the 14th September between Norwich Airport and the University of East Anglia / Norfolk and Norwich University Hospital, serving the northern ring road. This route would serve the retail area around Sweetbriar Road, Hellesdon, Cromer Road, Mile Cross, Boundary Road and Earlham Road.

Figure 7-7 - Konectbus 521 Service Overview



7.5.2. This route covers much of the Option B route, allowing more focus to be given to Option A and that both options could be delivered, substantially improving bus access to the west of Norwich. The timetable is shown below.

Figure 7-8 - Konectbus 521 Timetable

park&ride NORWICH

Timetable commences 14 September 2020

w: norwichparkandride.co.uk
t: 03300 539358
e: feedback@konectbus.co.uk
[nparkandride](https://twitter.com/nparkandride)

Airport P&R - Boundary Road - University - N&NU Hospital											521
Mondays to Fridays (except public holidays)											
Airport (Park & Ride)	0715	0810	0930	1030	1130	1230	1330	1430	1530	1645	1752
Hellesdon, Cromer Road, Tesco	0717	0812	0932	1032	1132	1232	1332	1432	1532	1647	1754
Boundary Road, opp ASDA	0720	0817	0935	1035	1135	1235	1335	1435	1535	1652	1758
Earlham Road, Fiveways	0730	0830	0945	1045	1145	1245	1345	1445	1545	1702	1808
UEA, University Drive [C]	0733	0835	0948	1048	1148	1248	1348	1448	1548		
N&NU Hospital	0740	0845	0956	1056	1156	1256	1356	1456	1556	1712	1818

N&NU Hospital - University - Boundary Road - Airport P&R											521	
Mondays to Fridays (except public holidays)												
N&NU Hospital [B]	-	0742	0847	1000	1100	1200	1300	1400	1500	1605	1715	1820
UEA, University Drive [B]	0650			1010	1110	1210	1310	1410	1510	1620	1730	1830
Earlham Road, Fiveways	0653	0750	0855	1013	1113	1213	1313	1413	1513	1625	1735	1833
Boundary Road, ASDA	0705	0800	0905	1020	1120	1220	1320	1420	1520	1635	1743	1841
Hellesdon, Cromer Road, opp Tesco	0710	0805	0910	1024	1124	1224	1324	1424	1524	1640	1748	1846
Airport (Park & Ride)	0712	0807	0912	1026	1126	1226	1326	1426	1526	1642	1750	1848

7.5.3. However, after a short trial period in December 2020, Konectbus announced that the route had been withdrawn due to low passenger numbers under Coronavirus restrictions. The limited period of operation had shown signs that the route would potentially be viable under normal circumstances and would have potentially had a higher uptake. Due to uncertainty on future bus patronage due to the impacts of COVID-19, both options are being considered in more detail to enable a decision to be made regarding possible future uptake.

OPTION A - THORPE MARRIOTT TO NNUH VIA LONGWATER

7.5.4. Following the results gathered from the Local Access Consultation, the Western Arc Service A was the most popular choice from respondents and was explored in more detail to assess for suitability. Analysis was carried out by drawing the possible route, overlaid with the current locations of bus stops and 2011 Census data to quantify the possible numbers of passengers likely to use the service via several routes.

7.5.5. **Figure 7-9** outlines the plan, showing the Western Arc Service split into 4 further options. Included on the plans are two large areas of growth in Taverham and Easton, totalling 900 and 1,400 dwellings respectively. Depending on which option is selected the routes could serve the future development, boosting up the number of potential passengers using the service. **Table 7-3** shows the number of passengers that could potentially use the service per route option.

Table 7-3 - Potential passenger numbers - Option A

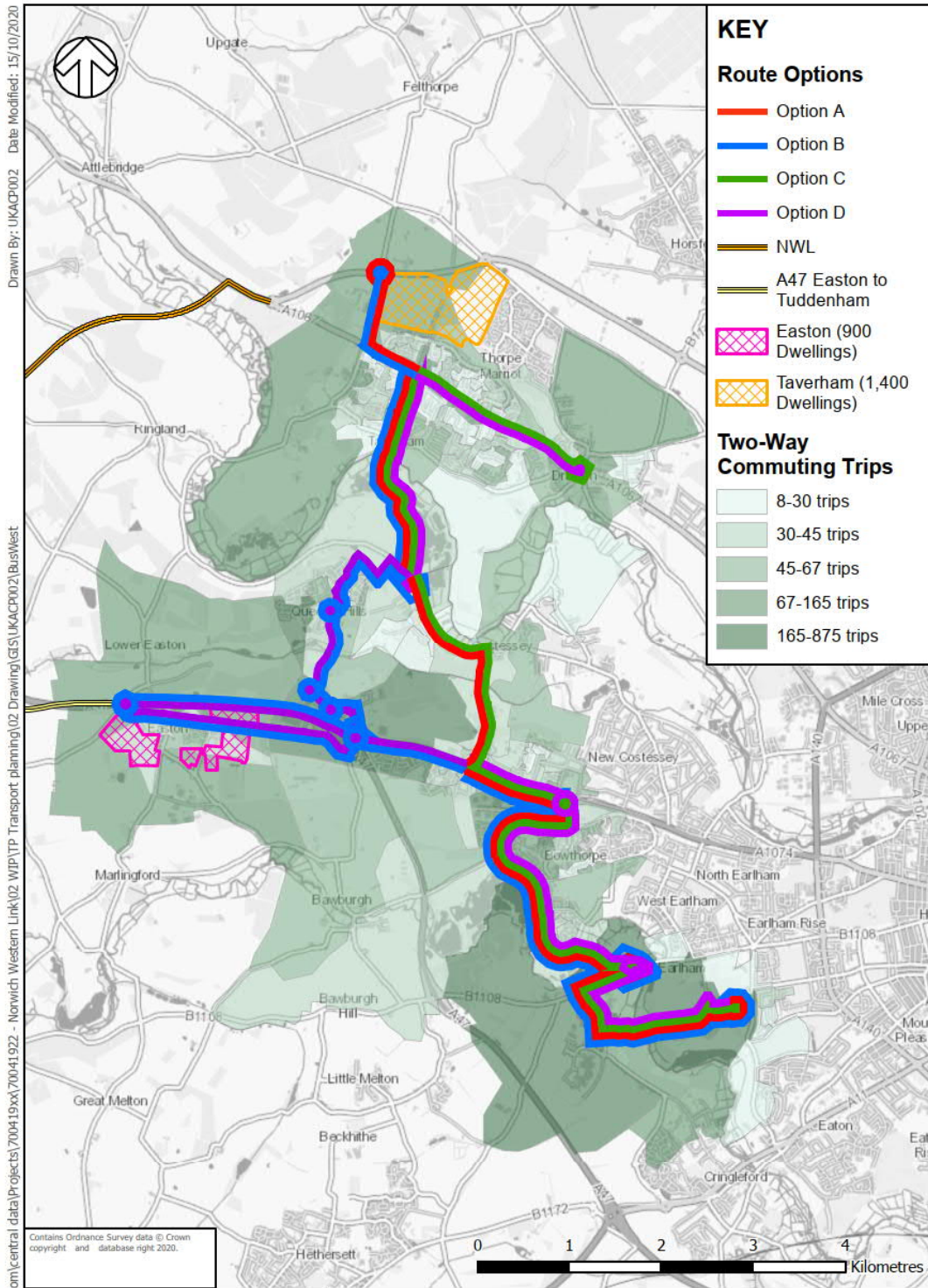
Route Option	Number that currently live and work in the catchment	Number of residents included in Local Plan allocations	Total daily trips by bus
Option A-A	511	3,500	309
Option A-B	757	5,750	481
Option A-C	585	3,500	316
Option A-D	934	2,250	234

7.5.6. Option B could potentially provide the greatest number of trips by bus, which are boosted by the future growth planned with the Local Plan.

7.5.7. The Head of Passenger Transport at NCC was contacted in relation to the proposal to extend the potential bus service to Easton College, to gather any evidence to support the need for the service. In response, the Officer mentioned that a route was created in September 2020, using Department for Education funding during the COVID-19 pandemic, which sought to avoid having students having to travel into Norwich and then out again to access the college.

The route served Drayton, Taverham and Costessey, however only two students used the service and so it was discontinued after two weeks. This was useful in helping to decide that the diversion to Easton would not be worthwhile.

Figure 7-9 - Western Arc Service - Option A Overview



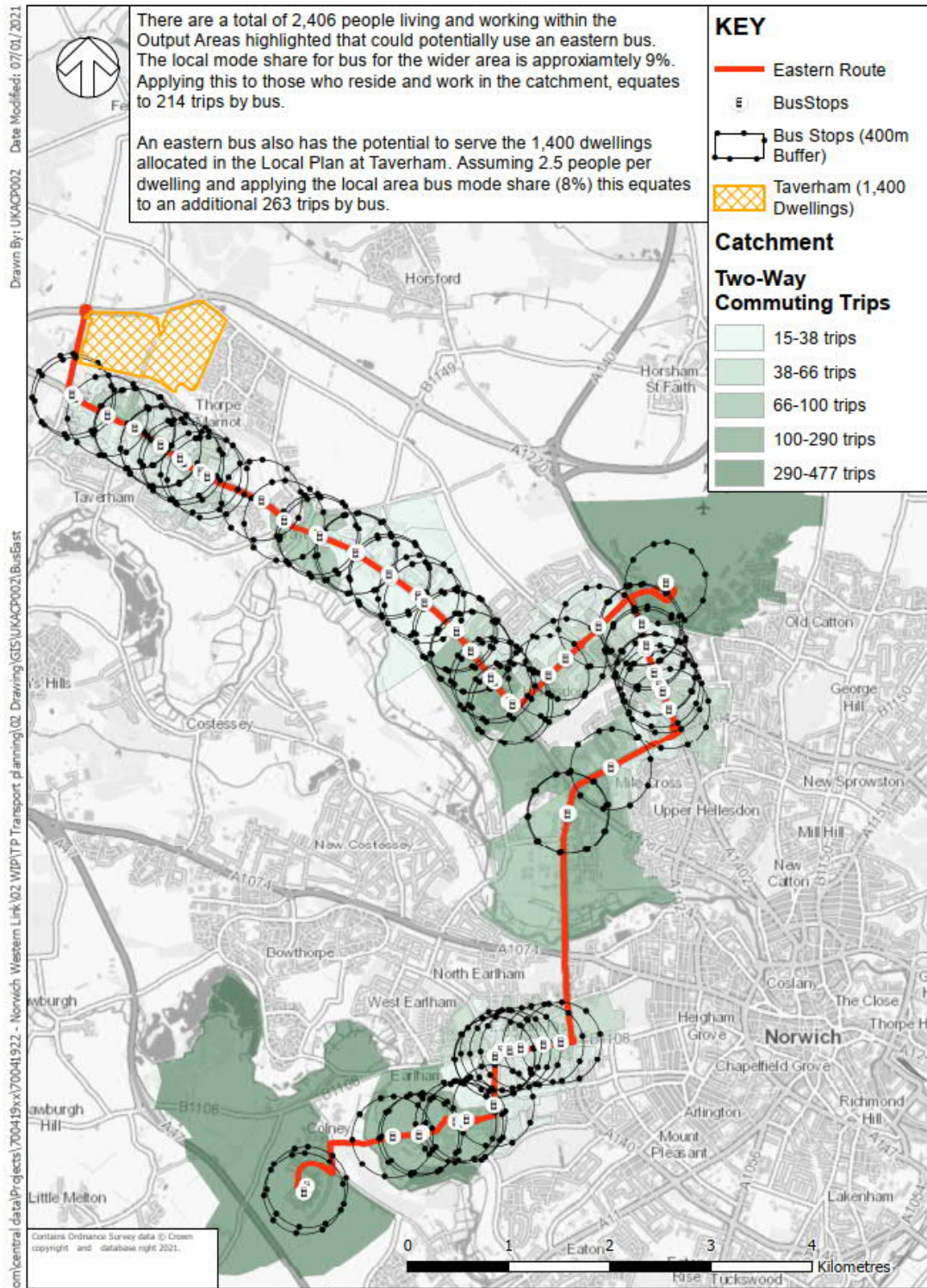
OPTION B - THORPE MARRIOTT TO NNUH VIA OUTER RING ROAD

- 7.5.8. Option B was assessed for viability following the use of the route for the 521 Konectbus service from Norwich Airport to UEA. Similar to the assessment carried out for Options A, a possible route was drawn, overlaid with the locations of bus stops and 2011 Census data to calculate the possible level of patronage.
- 7.5.9. **Figure 7-10** shows the plan of the Western Arc service proposed, including the key growth area in Taverham, totalling 1,400 homes. **Table 7-4** shows the number of passengers that could use the service if the option was taken forward.

Table 7-4 - Potential passenger numbers - Option B

Route Option	Number that currently live and work in the catchment	Number of residents included in Local Plan allocations	Total daily trips by bus
B	2,406	1,400	263

Figure 7-10 - Western Arc Service - Option B Overview



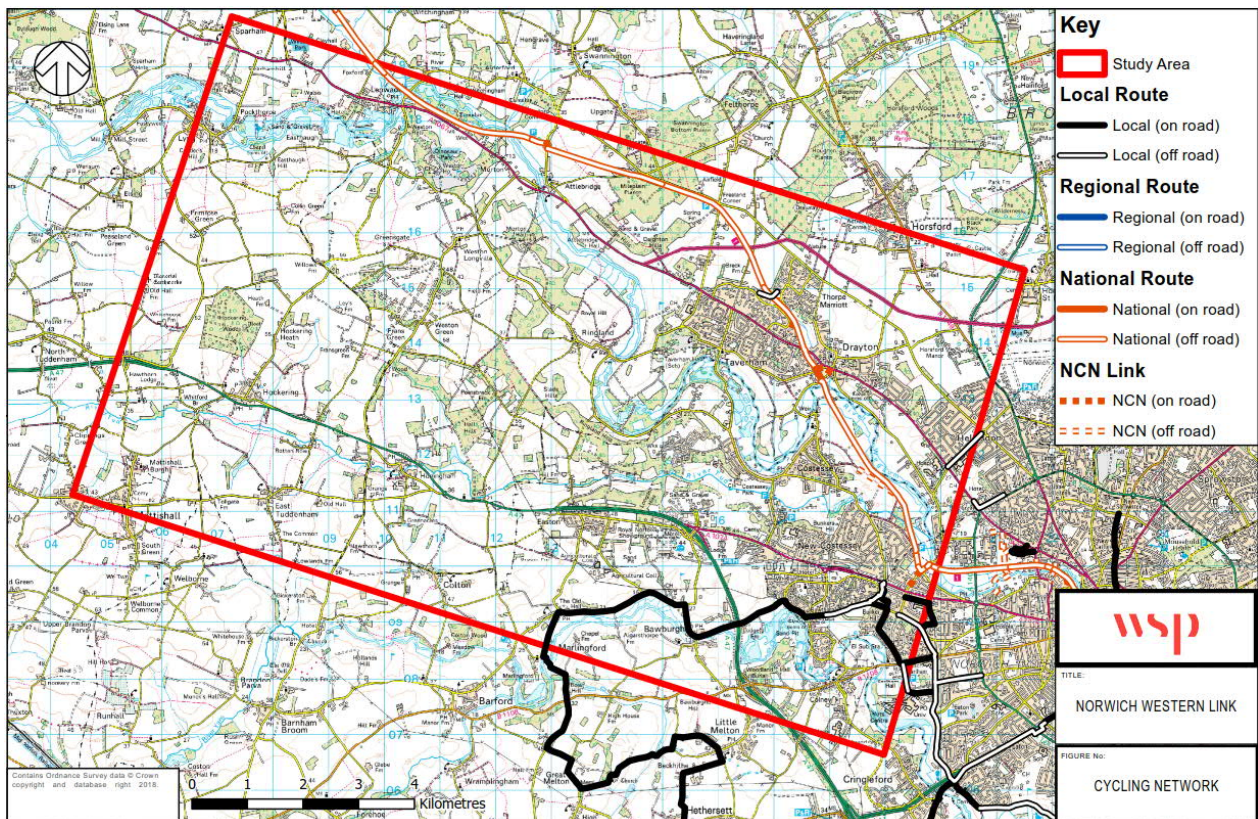
7.5.10. The plan above shows that greatest patronage would be from the NNUH, UEA and Norwich Airport areas. There could also be a number of leisure trips that could be attracted to the service, continuing to improve the level of use.

8 CYCLE FRIENDLY ROUTE OPTIONS

8.1 EXISTING CONDITIONS

- 8.1.1. While cycling could provide a sustainable alternative means for short to medium length journeys, the infrastructure available to do so is extremely limited. Local (on-road) routes run to the south-east and the National Cycle Network Route 1 (NCN1) cross through the northern extents. This section of the NCN1, also known as Marriott's Way, is a 42km footpath, bridleway and cycle route, following the alignment of two disused railway lines. The route passes through Norwich city centre, Costessey, through Drayton crossing the A1067 and the A1270, and goes westward towards Lenwade. From there the route goes north towards Reepham and beyond.
- 8.1.2. **Figure 8-1** Error! Reference source not found. shows the NCN1 and other local cycle routes present within the study area.

Figure 8-1 - Cycle Network



- 8.1.3. More widely, the Norwich cycle network is made up of seven colour-coded routes, known as 'Pedalways', which cross the city in all directions, and converge at St Andrews Plain in the city centre. Since 2013, Norwich has been awarded two significant Cycle City Ambition grants from the DfT and, with additional contributions from local partners, the cycle network has seen £14.1 million of investment by 2019.

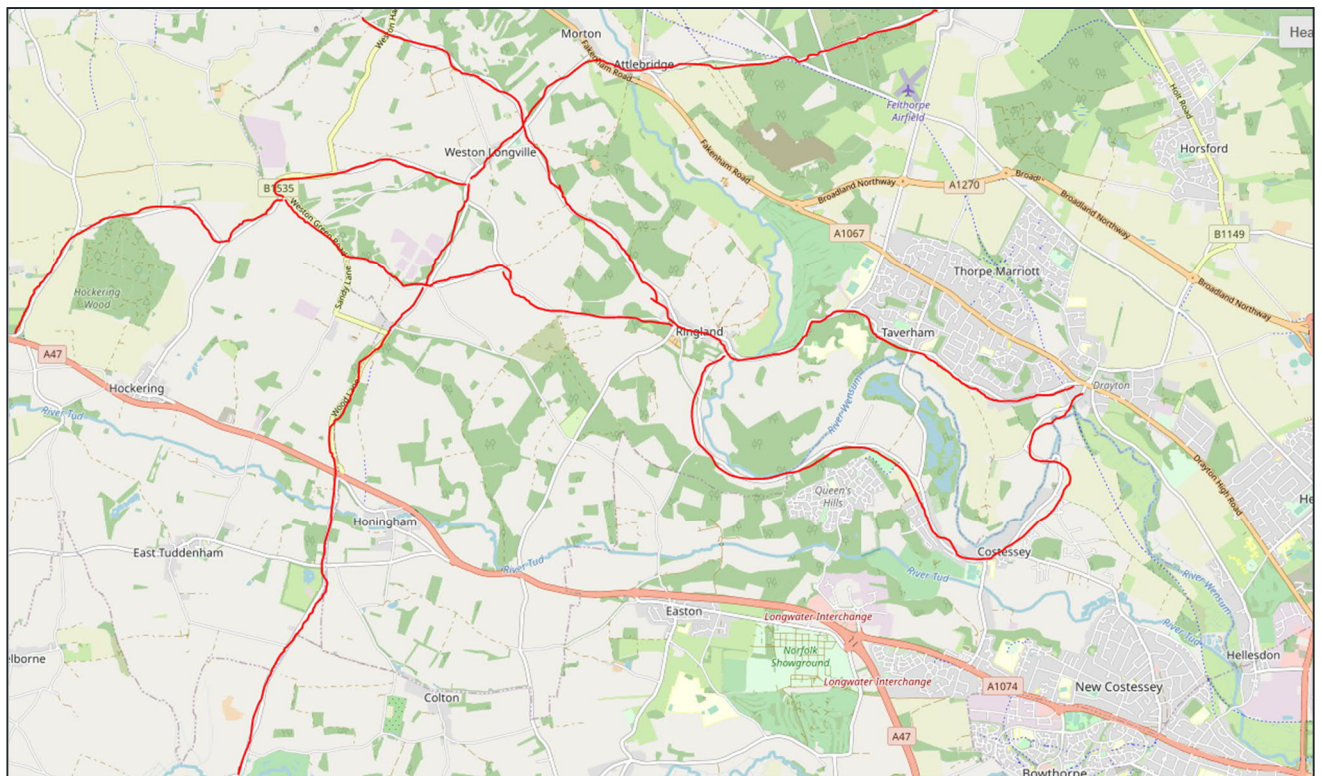
8.1.4. The Pedalways in Norwich are as follows:

- Green between Bowthorpe and Broadland Business Park
- Red between Drayton and Whitlingham (NCN1)
- Yellow between Lakenham and Aviation Academy
- Pink between NNUH and Heartsease
- Blue between Wymondham and Sprowston
- Orange Inner circuit
- Purple Outer circuit

WENSUM VALLEY CYCLING

8.1.5. The Wensum Valley Cycling group, which operates within the Weston Longville and Ringland Parishes, was contacted to define what routes are currently used and how the NWL proposals may affect them. Although the group had been suspended during the coronavirus pandemic, individual members of the group would make use of the local road network in and around Weston Longville. The cycling routes currently used by the group are shown in **Figure 8-2**.

Figure 8-2 - Wensum Valley Cycling – Routes Currently Used



8.1.6. The group notes that since the introduction of the Broadland Northway, there has been limited opportunity to leave Norwich and travel north without using a roundabout, making it less attractive for users. Following review of the Local Access Consultation material, the group would like to see improved crossing facilities on the A1067 where the above routes intersect.

8.2 LOCAL ACCESS CONSULTATION 2020

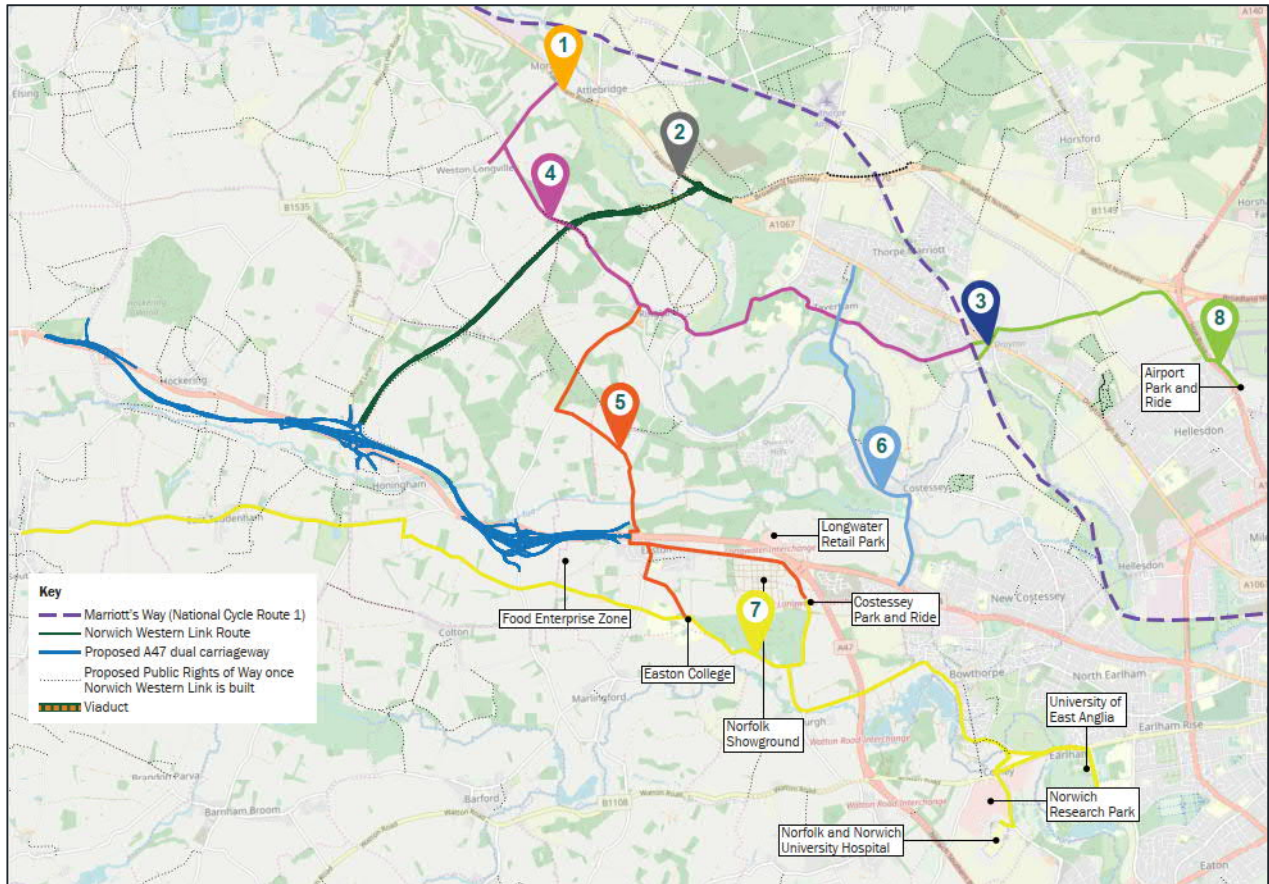
8.2.1. Building upon the opportunities identified through the WCHAR process and via stakeholder workshops, additional options for creating Cycle Friendly Routes and improved crossing facilities on A1067 were included in the 2020 Local Access Consultation. The ideas for the sustainable transport improvements included suggestions from local parish councils and user groups, which were intended to support more people to walk, cycle and use public transport across the wider area around the NWL. The potential measures consulted on were:

- 1) Create a new crossing facility on the A1067 Fakenham Road at Attlebridge to help pedestrians and cyclists cross safely and confidently;
- 2) Create a new pedestrian crossing on the A1067 Fakenham Road to connect Ringland Footpath 1, south of the A1067, with Attlebridge Restricted Byway 4, north of the A1067;
- 3) Create a new pedestrian and cycle crossing of Drayton High Road to improve connectivity with the Marriott's Way;
- 4) Create a cycle-friendly on-road link towards central Norwich from Weston Longville via Ringland and Taverham - improving cycle priority at junctions and on bridges on this lower traffic route would enhance access to school and workplaces on the western edge of Norwich and improve connectivity to the Marriott's Way (part of National Cycle Network 1);
- 5) Create a cycle friendly on-road link from Ringland to Easton. Once the Easton roundabout is removed as part of the A47 upgrade, this route would have lower traffic. Cycle safety could be improved at key junctions and pinch points. This would help to improve access to educational sites, such as Easton College, and Costessey Park and Ride site;
- 6) Create a cycle friendly on-road link from Taverham to Dereham Road - with the Norwich Western Link in place, this route would have reduced traffic. Creating section of cycle lane and introducing cycle priority measures at junctions would improve access to schools, shops and medical facilities and link to existing cycle paths on Dereham Road;
- 7) Create a cycle friendly on-road link south of A47 from Mattishall to the Norfolk and Norwich University Hospital and University of East Anglia - this route would benefit from reduced traffic once the nearby A47 is dualled. Introducing cycle priority measures would improve access between residential areas, medical facilities and employment areas, including the Food Enterprise Zone at Easton, Norwich Research Park and Costessey Park and Ride site; and
- 8) Improve cycle parking at and access to the Airport Park and Ride site from Drayton - this would provide opportunities to access Park and Ride bus services by cycling and improve connectivity to the Marriott's Way and onward destinations in the western fringe of Norwich.

8.2.2. **Figure 8-3** shows the locations of the eight potential sustainable transport interventions.

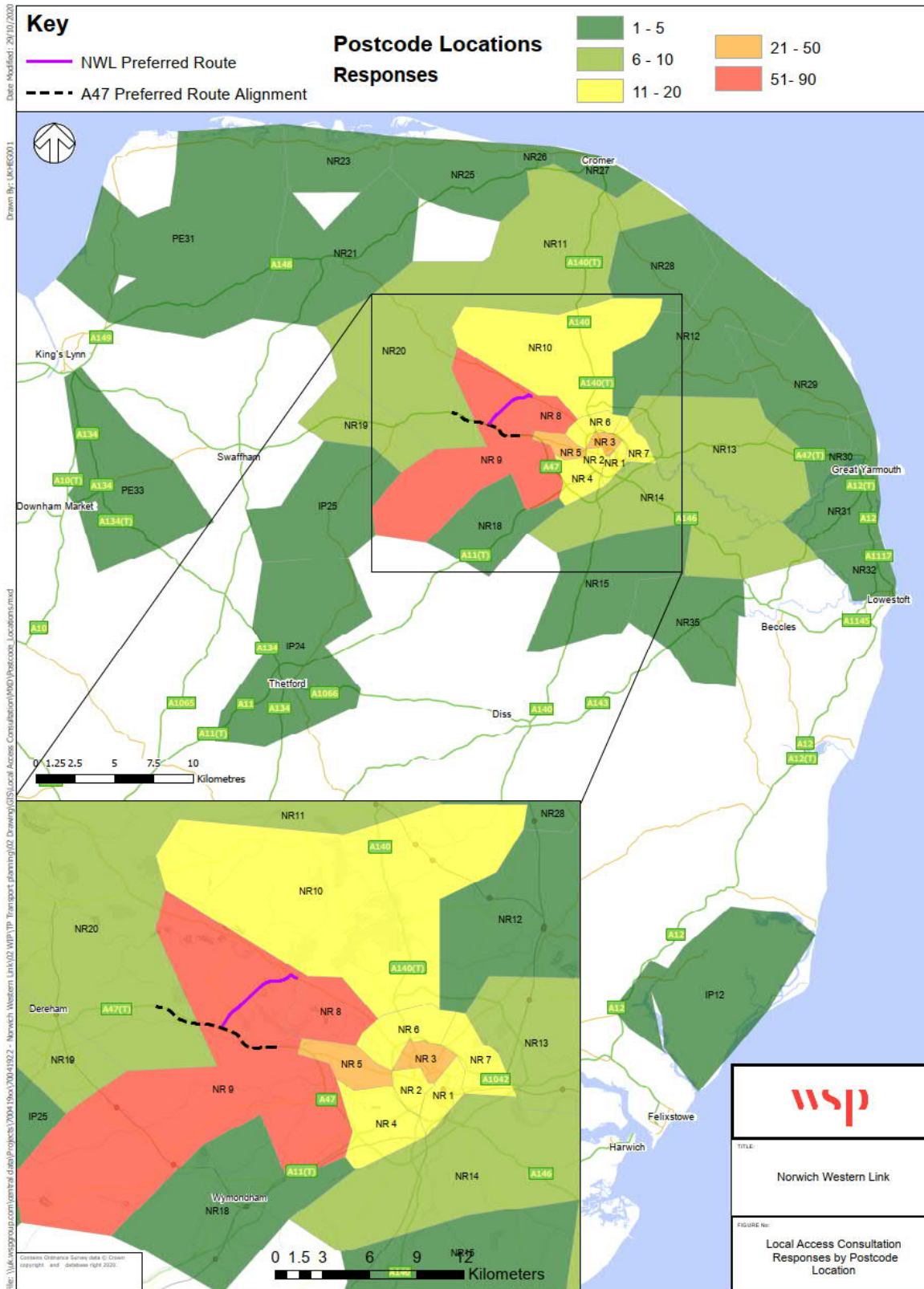
8.2.3. Respondents to the consultation were asked to select up to three of the above interventions that they believe would best support people to walk / or cycle in the area to the west of Norwich.

Figure 8-3 - Sustainable Transport Intervention Options



- 8.2.4. 438 people responded to the Local Access Consultation, where almost three-quarters (316) of respondents noted that they were responding as ‘a local resident and a further 40 responses received from those replying on behalf of a local business, organisation or community group and provided the organisation name. Postcode data was collected from respondents, and their location in proximity to the scheme is shown in **Figure 8-4**.
- 8.2.5. The plan shows that the greatest volume of responses was received from the NR8 and NR9 postcodes, which is where the NWL will be routed, and therefore residents in these areas will be more directly affected. All responses were received through Citizen Space (NCC’s online consultation tool), apart from 36 by email and 35 by letter.
- 8.2.6. The overall feedback indicates very similar levels of support for options 1-7 (ranging from 145 responses to 114) but a noticeably lower level of support (65 responses) for option 8. The top four options were as follows:
- **Option 4:** Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham (145 responses)
 - **Option 3:** Create a new pedestrian and cycle crossing on Drayton High Road to improve connectivity with the Marriott’s Way (139 responses)
 - **Option 7:** Create a cycle-friendly on-road link south of A47 from Mattishall to the Norfolk and Norwich University Hospital & University of East Anglia (131 responses).
 - **Option 1:** Create a new pedestrian and cycle crossing on the A1067 Fakenham Road at Attlebridge (130 responses)

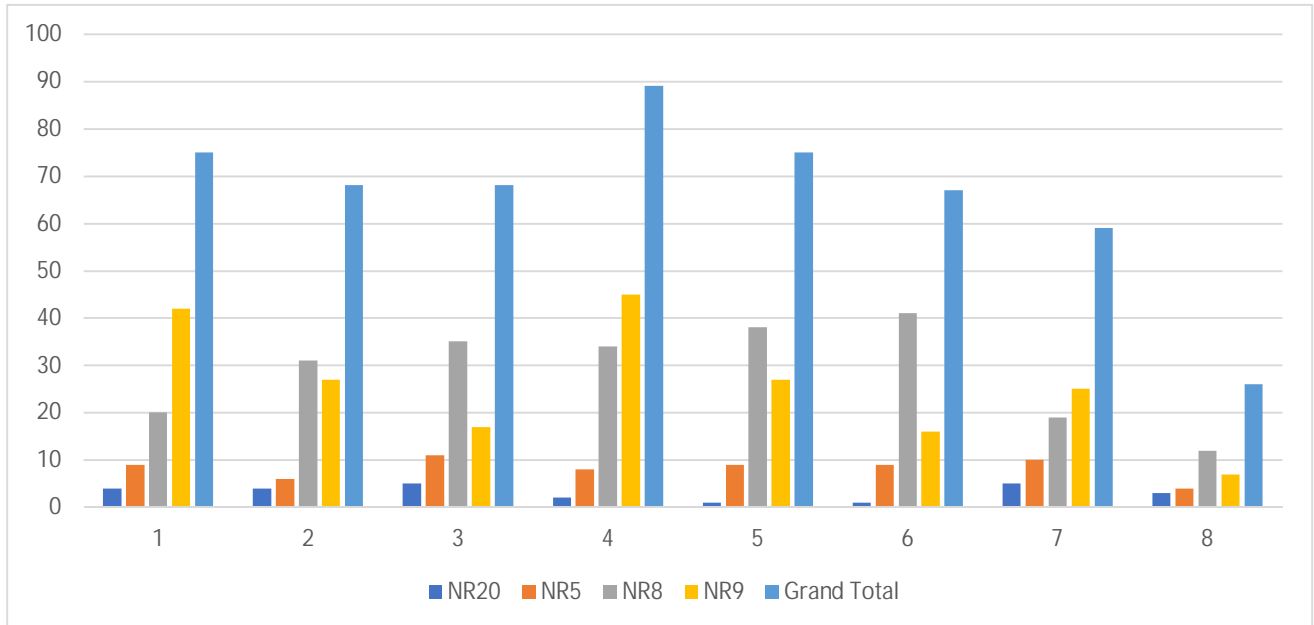
Figure 8-4 - Local Access Consultation responses by postcode location



8.3 SHORTLISTING

8.3.1. The above consultation results have been checked against a more localised view based on responses from residents stating that their home postcodes were located in NR5, NR8, NR9 or NR20 only. The results are summarised below.

Figure 8-5 - Wider Sustainable Transport Options



8.3.2. Whilst Option 4 is again the top ranked option amongst local residents in the west of Norwich and Option 8 was again least popular, this more localised view provides a slightly different picture of feedback with Options 1 and 5 in joint second place and Options 2 and 3 in joint third place. Option 6 also had very similar response levels to those in joint third place.

8.3.3. Since the top 3-4 priorities from public consultation, (other than the top and bottom ranking options), are not clearly defined, it is recommended that other performance criteria also need to be taken into account when prioritising a shortlist of 3-4 options, which include:

- Traffic changes as a result of the NWL scheme;
- Existing Catchment and Future Propensity to Walk and Cycle (National Travel Survey);
- Connectivity with key employment sites and non-residential land uses;
- Synergy with other proposals (A47 scheme, TfN, proposed developments) and NWL options; and
- Cost of proposed options.

8.4 TRAFFIC CHANGES

8.4.1. The 2025 opening year forecast Traffic Model results have been reviewed to understand which routes would be more attractive for cycling and walking. The Do Something scenario from the updated NATS model has been used to represent the situation with the proposed NWL in place.

8.4.2. For the cycle friendly options (4-8), the routes with the lower levels of future traffic would create more attractive conditions for cyclists. Based on maximum and minimum flows, the top three routes are Options 4, 7 and 5 with AADTs less than 2,500 per day expected with the NWL in place, along the majority of the route length. These routes would be less likely to require segregation, as set out

in LTN 1/20, although traffic speeds would need to also be close to 20mph for this to be achievable. Figure 4.1 of LTN 1/20 also notes that “In rural areas ... shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day.”

- 8.4.3. NCC are currently reviewing the applicability of the new LTN 1/20 guidance in very rural locations such as these. It is noted that a review of major scheme proposals such as NWL is currently being carried out by Sustrans in this regard on behalf of Transport East.
- 8.4.4. The more urban routes 6 and 8 currently have lower speed limits but higher traffic volumes, so are likely to require segregation which would have a higher infrastructure cost. A section of Marl Hill Road (which connects Weston Longville with Attlebridge) and part of the Option 5 route between Honingham Lane and Ringland Road have also been assumed to include potential segregated facilities due to traffic volumes and/or vehicle speeds in excess of 30mph.
- 8.4.5. For the pedestrian / cycle crossing options (1-3), the proposed interventions would potentially have a more beneficial effect in mitigating severance issues caused by road traffic where flows are highest. 2025 opening year AADT (Annual Average Daily Traffic) flows for the Do Minimum Forecast year have been compared with Do Something flows for each of the option locations. The NWL increases traffic more significantly at the Option 3 location than at Option 2 or Option 1 locations. This suggests that Option 3 would have a more beneficial effect in mitigating severance issues in the Do Something scenario by making it easier to cross the road. Despite this, Options 1 and 2 would have higher traffic speeds, as well as forecast traffic flows on A1067 in excess of 10,000 AADT, and there have been road traffic accidents close to the Option 1 and Option 3 locations in the last five years, so new crossings in these locations would potentially provide additional benefits.

EXISTING POPULATION CATCHMENT

- 8.4.6. In order to identify the likely number of people the proposed interventions may benefit; GIS analysis was used to identify a 400m buffer around each of the option locations or routes to create a catchment buffer (this is equivalent to a 5-minute walk). Census 2011 data by Output Area on population has been overlaid and interrogated. The approximate total population within each catchment has been tabulated below. Since Option 7 is a substantially longer route, this route has been split into two sections – east and west of Easton.
- 8.4.7. The crossing options ranked lowest for this metric as they have the smallest footprint and therefore the smallest scheme catchment. However, within this group, Option 3 has slightly more catchment population than Options 1 and 2, so would provide greater benefit to more users. For the cycle-friendly route options, Option 7 has more than double the catchment of any other option, but this is also the longest route option with the largest footprint and geographic catchment area. Option 7 has therefore been split into an eastern and western section (east and west of Easton where the route meets Option 5 as shown in **Figure 8-3**). Options 7E, 6 and 4 have the biggest catchment and would potentially offer more benefit to more people, creating wider opportunities for mode shift.

Table 8-1 - Existing Population Catchment - 400m Buffer

Option	Population	Rank
Option 1	200	2
Option 2	23	1
Option 3	1,272	3
Option 4	7,420	7
Option 5	5,122	6
Option 6	9,504	8
Option 7W	4,134	4
Option 7E	14,320	9
Option 8	5,095	5

FUTURE PROPENSITY TO WALK AND CYCLE

Propensity to Cycle Tool

8.4.8. Mode share assumptions used within the Propensity to Cycle Tool (PCT) have been applied to understand the number of potential future trips that could benefit from each of the proposed options, based on forecast commuting patterns. For this analysis, there are several scenarios available within the PCT. The Government Target (Equality) scenario within the PCT assumes that active travel in the UK is doubled by 2025, in line with the recently published 2020 Gear Change guidance. For high level assessment purposes, this is taken as the proposed situation with the STS interventions in place. This is compared with the Do Minimum scenario which takes observed NMU mode share uplifts between 2011 and 2018 from NTS (East of England Region data) and extrapolates them to the opening year of 2025 (equivalent to a 15% increase on current levels). The changes in mode shares as a result of the various scenarios are shown on the www.PCT.bike website – the below extract shows the mode shares predicted for the Norfolk area as follows:

Figure 8-6 - Propensity to Cycle Tool Website Extract

Scenario	% cyclists	% walking	% car drivers	% all other modes
Census 2011	4.9 %	11.8 %	68.8 %	14.5 %
Government Target (equality)	8.2 %	11.1 %	66.6 %	14.1 %
Government Target (near market)	8.3 %	10.9 %	66.7 %	14.1 %
Gender Equality	7.2 %	11.3 %	67.4 %	14.1 %
Go Dutch	20.3 %	8.4 %	59.0 %	12.3 %
Ebikes	25.7 %	7.8 %	55.1 %	11.4 %

Source: Propensity to Cycle Tool, www.PCT.bike, January 2021

- 8.4.9. Population data from the 2011 Census has been used as the starting point, with an assumption of household occupancy of 2.3 people per dwelling (based on the average household size for the Norfolk area, E1000020, taken from Table HO1UK from the 2011 UK Census), along with an assumed trip rate of 8 trips per household per day (Data on all day trip rates per household taken from TRICS 7.7.4 2021 with residential sites selected in England outside London, excluding town centre sites and excluding sites with population of more than 20,000 residents within 1 mile).
- 8.4.10. The Walking and Cycling mode shares from the above PCT table for Norfolk have been used for the three crossing options (1-3) and the cycling mode shares only have been used for the cycle friendly route options (4-8). For the crossing options, 40% of NMU trips are assumed to be on routes that would be catered for and for the cycle route options, 30% of trips are assumed to be on the desire line. Trip rates and mode shares for the baseline (Do Minimum) scenario are shown in **Table 8-2**.

Table 8-2 - Calculation of Trip Rates and Mode Shares for the Do Minimum (without NWL)

Option	Population	HH	All trips per day	% trips on Desire Line	%NMU PCT census	NMU trips per day	2025 NTS forecast (+15%) DM
Option 1	200	87	696	<u>40%</u>	17%	46	53
Option 2	23	10	80	<u>40%</u>	17%	5	6
Option 3	1,272	553	4,424	<u>40%</u>	17%	296	340
Option 4	7,420	3,226	25,809	30%	5%	379	436
Option 5	5,122	2,227	17,816	30%	5%	262	301
Option 6	9,504	4,132	33,057	30%	5%	486	559
Option 7W	4,134	1,797	14,379	30%	5%	211	243
Option 7E	14,320	6,226	49,809	30%	5%	732	842
Option 8	5,095	2,215	17,722	30%	5%	261	300

- 8.4.11. For comparison, the process has been repeated for the Do Something scenario, taking the PCT forecast mode shares for Government Target scenario as shown below in **Table 8-3**.

Table 8-3 - Calculation of Trips Rates and Mode Shares for the DO something (with NWL) scenario

Option	Population	HH	All trips per day	% trips on desire line	%NMU PCT Govt Tgt	NMU trips per day	2025 NTS forecast (+15%) DS
Option 1	200	87	696	40%	19%	54	62
Option 2	23	10	80	40%	19%	6	7
Option 3	1,272	553	4,424	40%	19%	342	393
Option 4	7,420	3,226	25,809	30%	8%	635	730
Option 5	5,122	2,227	17,816	30%	8%	438	504
Option 6	9,504	4,132	33,057	30%	8%	813	935
Option 7W	4,134	1,797	14,379	30%	8%	354	407
Option 7E	14,320	6,226	49,809	30%	8%	1,225	1,409
Option 8	5,095	2,215	17,722	30%	8%	436	501

8.4.12. Comparing the Do Something and Do Minimum scenarios shows the following changes in daily trip making as a result of the options as shown in **Table 8-4**.

Table 8-4 - Comparison of Do Minimum and Do Something Scheme Benefits

Option	2025 DM	2025 DS	2025 DS New Trips	Rank
Option 1	53	62	+8	2
Option 2	6	7	+1	1
Option 3	340	393	+53	3
Option 4	436	730	+294	7
Option 5	313	524	+203	6
Option 6	559	935	+376	8
Option 7W	253	423	+164	4
Option 7E	842	1,409	+567	9
Option 8	300	501	+202	5

8.4.13. The above results show that of the proposed crossings Option 3 is likely offer benefit to more users than Options 1 and 2. Whilst for the cycle friendly routes, Option 7E, 6 and 4 are likely to cater for more users.

Connectivity with key land uses in the west of Norwich

8.4.14. Whilst all options were developed with a key objective of improving connectivity to schools, shops, jobs and the Marriott's Way, some offer more connections to non-residential land uses than others.

A high-level review of the connectivity benefits has been carried out and surmised in the table below.

Table 8-5 - High Level Option Connectivity with Local Facilities

Option	Improves access to key facilities (Yes - Y or No - N)									Total	Rank
	Schools	Shops	Jobs	Medical Facilities	Village Hall	Marriott's Way	PROW Network	Bus Stops	Park and Ride		
1	Y	N	N	N	Y	Y	Y	Y	N	5	5
2	N	N	N	N	N	N	Y	N	N	1	4
3	Y	Y	Y	Y	N	Y	N	Y	N	6	6
4	Y	Y	Y	N	Y	Y	Y	Y	N	7	7
5	Y	Y	Y	N	Y	N	N	Y	Y	6	6
6	Y	Y	Y	Y	Y	N	Y	Y	Y	7	6
7W	Y	Y	Y	Y	Y	N	Y	N	N	6	6
7E	Y	Y	Y	N	N	N	Y	Y	Y	6	6
8	Y	Y	Y	Y	N	Y	Y	Y	Y	8	8

- 8.4.15. Of the Cycle route options, Option 8 and 4 offer the best opportunity for connectivity improvements with various land uses along each of these routes, with options 5, 6, 7 and 3 also offering good connections.
- 8.4.16. Option 8 connects to key employment areas and the Airport, the Park and Ride site, schools, shops and medical facilities near Drayton High Road, The Marriott's Way and cycleways alongside the A1270 Broadland Northway.
- 8.4.17. Option 4 connects the villages of Attlebridge, Weston Longville and Ringland, and their village halls as well as onward routes to schools, shops, a medical centre and local jobs in Taverham and Drayton in addition to the Marriott's Way.
- 8.4.18. Option 7E offers enhanced connections to major employment sites at NRP and NNUH as well as higher and further education facilities at Easton College and UEA. This route also includes Easton where housing development and the Food Enterprise Zone are planned.
- 8.4.19. Option 7W connects residential areas south of A47 to local facilities such as GP surgery and schools in Mattishall.
- 8.4.20. Option 5 links Lower Easton and Ringland villages with Easton including Easton College and Costessey Park and Ride.
- 8.4.21. Option 6 would improve links between Taverham and Costessey which include schools, shops and village halls. Costessey also includes Roundwell Medical Centre.
- 8.4.22. Of the crossing locations, Option 3 at Drayton High Road is at a key intersection of routes at a busy junction which is difficult for pedestrians and cyclists to negotiate. The location is surrounded by land uses on both sides of A1067 which creates desire lines crossing the busy road. It is also located on

a desire line close to the Marriott's Way. This option offers much greater connectivity enhancement than the other two crossing options and links well with Option 4. However, Option 1 provides onward linkage to the Marriott's Way.

SYNERGY WITH OTHER OPTIONS AND WIDER SCHEMES

- 8.4.23. The way in which the cycle friendly route options fit with other transport proposals and developments in the surrounding areas also needs to be taken into account.
- 8.4.24. Options 5 and the eastern part of Option 7 offer good synergy with the A47 North Tuddenham to Easton dualling scheme and the Food Hub, plus potential new housing developments at Easton. Option 6 also supports development at Taverham and Costessey and offers connectivity with Transforming Cities schemes at Dereham Road. Option 7W runs parallel with improvements being proposed by Highways England, so would potentially duplicate and reduce the benefit provided by the HE scheme.
- 8.4.25. The other cycle route options have less synergy with committed developments and wider transport investment schemes. Of the crossing options, Option 3 is located closer to new developments than Options 1 and 2.
- 8.4.26. In terms of synergy between the options to create a logical Sustainable Transport package, Option 4 connects directly with Options 1 and 3 and together these create a loop connecting to the Marriott's Way. Option 2 links directly with the proposed NWL works and NMU strategy, Option 5 connects with Option 4 and also Option 7.
- 8.4.27. All options fit well with Transport for Norwich strategic objectives by improving opportunities for walking and cycling, reducing air quality impacts of transport and reducing congestion. Those with higher concentrations of non-residential land uses and more densely populated catchments are likely to have the greatest synergy with the TfN aspirations. However, for recreational walking and cycling, the more rural routes benefitting from traffic reduction as a result of the scheme are also able to contribute by opening up new opportunities for walking and cycling on parts of the network that are currently intimidating for vulnerable users due to the presence of through-traffic. The NWL will help to unlock this opportunity by providing a strategic road that alleviates pressure on minor rural routes, making them more attractive for walking and cycling.

OPTION COSTS

- 8.4.28. The cost of the proposed works has been estimated in high level terms based on benchmarking with other recently implemented schemes associated with the NDR and the recent Transforming Cities bid. Option costs are based on a number of assumptions, with further design development work required to accurately estimate costings.
- 8.4.29. For the pedestrian/cycle crossing options, it is assumed that speeds could be managed to achieve an acceptable at grade crossing in accordance with LTN1/20 guidance which has come forward since the NDR was constructed. For a robust cost, a signalised crossing is assumed, with power supply connections required unless solar power can be achieved, however, the crossing type will be reviewed as the options are developed further.
- 8.4.30. No allowance has been made for street lighting in the immediate vicinity of the crossings as lighting is already present at Option 3 location and there are ecology implications to consider in rural locations and the surrounding network is unlit. It is therefore expected that the costs for each crossing would be in the region of £100K-£125K.

- 8.4.31. For the cycle friendly route options, the implications of new LTN 1/20 guidance published in July 2020 are still being interpreted by NCC Highways in respect of how these should be applied in a rural context. At this stage it has been assumed that cycling in mixed traffic would be possible for routes which are forecast to have low traffic flows in the NWL opening year 2025 (Options 4, 5 and 7).
- 8.4.32. However, Chapter 7 of the guidance and Table 4.1 advocates that vehicle speeds need to be managed to below 30mph in order to make the routes attractive for cycling in mixed traffic. For lower traffic routes, for costing purposes, in advance of developing a detailed scheme design, allowances have been made for TROs (Traffic Regulation Orders) for a low speed traffic zone along each route, with gateway features at each end (any bespoke signage unique to the scheme would potentially require DfT approval).
- 8.4.33. Within such zones, it is anticipated that speed management features would be implemented at least every 200m. A wide range of measures could be implemented at each location – these include painted roundels, interactive signs, road narrowings, horizontal or vertical deflection (chicanes, speed humps/cushions etc), lines and signs to raise awareness of cyclists and influence slower vehicle speeds along the route. A cost of £50K per km has been applied to each of the route options 4,5 and 7), assuming no requirement for street lighting along the routes.
- 8.4.34. For Options 6 and 8 segregation of some sections is more likely to be required due to higher traffic volumes. For Option 5 there is also a section of about 1.2km that may require segregation. Therefore, a higher cost of £200K per km has been applied to affected sections. An additional allowance for improved crossing facilities has also been included in Options 6 and 8. The cost of Option 5 also assumes that the HE proposed NMU bridge over A47 at Easton is in place as a Do Minimum scheme. A summary of high-level construction costs is provided in **Table 8-6** below.

Table 8-6 - High Level Cost Estimates

Option	Construction Cost	Construction Cost Rank	Maintenance Cost Rank
Option 1	£112,500	1	6
Option 2	£112,500	1	6
Option 3	£112,500	1	6
Option 4	£590,000	2	2
Option 5	£605,000	4	1
Option 6	£1,075,000	7	6
Option 7W	£650,000	5	4
Option 7E	£600,000	3	3
Option 8	£945,000	6	6

- 8.4.35. Maintenance is also expected to be a key issue, hence this has also been factored into the ranking below – signalised solutions are anticipated to be more onerous for maintenance so the crossing options have been allocated a higher cost per km for maintenance (albeit over a very short distance)

and the remaining route options are expected to have maintenance costs proportionate to the route length.

- 8.4.36. It should be noted that in locations where speeds cannot be managed to within the range 20-30mph and flows below 2,500 AADT cannot be achieved, there is a risk that additional segregation may be required to comply with LTN 1/20. An additional risk allowance has therefore to be added to the above costs at this stage.
- 8.4.37. In addition to the above construction costs, lessons learnt from other schemes such as Quiet Lanes projects across Norfolk, indicate that promotion and monitoring of the proposals as part of an area-wide strategy is helpful in securing uptake of the routes and influencing driver awareness of vulnerable users. An additional cost allowance of £50K has been included for these items as non-infrastructure measures also prior to applying a risk allowance.

SCHEME PRIORITISATION

- 8.4.38. In the event that delivering all options is not affordable a multi-criteria ranking system has been used to enable scheme options to be prioritised as explained above. A summary of the scheme option ranking is set out below in **Table 8-7**.
- 8.4.39. Options 4, 5, 6, 3 and 7E were the top ranked options taking into account all benefit factors. However, cost is expected to be a key consideration.

Table 8-7 - Scheme Ranking Against Appraisal Criteria

Option	1	2	3	4	5	6	7W	7E	8
Consultation (all)	5	3	7	8	2	4	6	6	1
Local Feedback	7	6	6	8	7	6	5	5	4
Severance (Peds)	6	7	8	N/A					
Traffic Reduction (Cycles)	N/A			8	7	6	3	5	4
Connectivity	5	4	6	7	6	6	6	6	8
Synergy with HE Scheme & Development	3	3	5	4	8	6	7	2	4
NMU Trips per Day	2	1	3	7	6	8	4	9	5
Total Benefit	28	24	35	42	36	36	31	33	26
Overall Rank	6	8	3	1	2	2	5	4	7

VALUE FOR MONEY

- 8.4.40. For comparative scoring of costs and benefits on an equivalent basis, the two cost elements have been given an increased weighted score in comparison with other factors to reflect that construction cost and maintenance cost are equally important to the six benefit categories considered for each option. In order to provide guidance on which options represent the best value for money, a proxy Benefit-Cost Ratio (BCR) is derived by comparing the relative costs (sum of construction cost and

maintenance costs scores multiplied by three) with the relative benefits on an equal basis. The results are summarised in **Table 8-8** below.

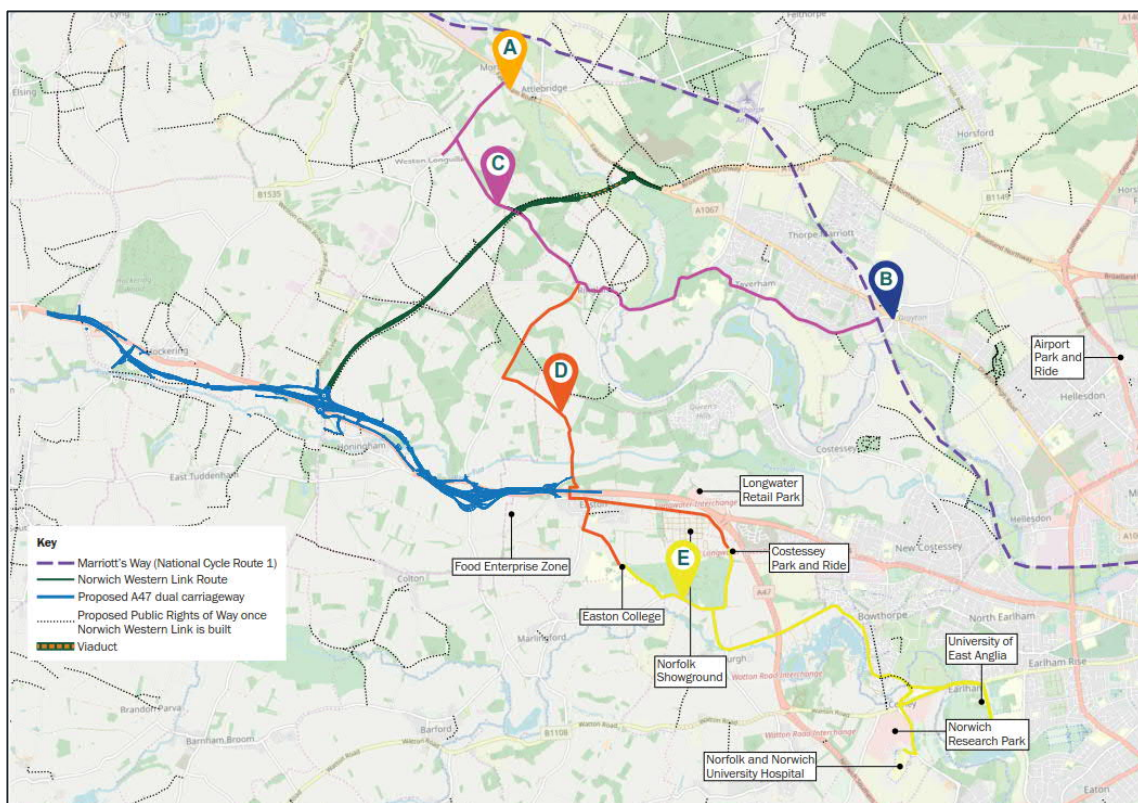
Table 8-8 - Summary of High Level Costs and Benefits

Option	1	2	3	4	5	6	7W	7E	8
Construction Cost	£112.5K	£112.5K	£112.5K	£445K	£605K	£1.075m	£650K	£600K	£945K
Construction Cost Rank	1	1	1	2	4	7	5	3	6
Maintenance Cost Rank	6	6	6	2	1	6	4	3	6
Weighted Total Cost	21	21	21	12	15	39	27	18	36
Total Benefit	28	24	35	42	36	36	31	33	26
Proxy BCR	1.33	1.14	1.67	3.50	2.40	0.92	1.15	1.83	0.72
BCR Rank	5	7	4	1	2	8	6	3	9

8.4.41. With the exception of Options 6 and 8, all options have a proxy BCR greater than 1.0 so would offer benefit in terms of Active Modes, including health and life expectancy benefits. When value for money is taken into account the top-ranking options are Option 4, 5, 7E and 3.

8.4.42. The preferred options prioritised for inclusion in the NWL scheme are shown in **Figure 8-7** below.

Figure 8-7 - Wider Sustainable Transport Interventions – Preferred Options



NEXT STEPS

- 8.4.43. As set out above a multi-criteria high level appraisal has been used to identify the best performing options for shortlisting. The textual comments from public consultation we received in response to the July 2020 Local Access Consultation also support this and have also helped guide the selection of shortlisted options.
- 8.4.44. It is proposed that further development of the shortlisted options (3, 4, 5 and 7E) is taken forward. It is also recommended that Option 1 is included as this would provide synergy with Option 4 and 3 offering improved connectivity with Marriott's Way. There was also local support from residents in the immediate vicinity of the scheme for Options 5, and Option 7 was generally well supported too. Option 5 has good synergy with the proposals that Highways England are bringing forward and offers connectivity to Easton College and the Costessey Park and Ride site. Option 7 (east of the Food Hub) has good synergy with Option 5 and was well supported in consultation, as well as offering connectivity to key land uses in the western fringe of Norwich such as the NNUH, NRP and UEA (amongst others). East of the Food Hub, this route has a more densely populated catchment and connects with the Wymondham circular route and Transport for Norwich strategy projects, as well as supporting new developments that are proposed in the local area.
- 8.4.45. The schemes which are proposed to be omitted from the next stage of work going forward are Options 2, 6 and 8. These options had lower levels of support in the public consultation and would have higher levels of traffic using the affected roads, so whilst they have good catchment and lower cost, they may be more efficiently served by bus.
- 8.4.46. Additionally, the current proposals for the Western Arc bus route duplicate part of the Option 6 route and a new bus service has recently commenced that caters for the desire line embodied within Option 8. The western part of Option 7 (Mattishall to the Food Hub at Easton) is also less well populated and may also be more efficiently served by bus.

8.5 ASSOCIATED IMPLICATIONS, KEY RISKS & OPPORTUNITIES

TRAFFIC MODEL TESTING

- 8.5.1. The proposed interventions will be tested within the strategic NATS model. With increased traffic restrictions, this may show that the proposed interventions cause traffic redistribution which may require further or more widespread mitigation. However, since in most cases, the forecast link flows on the affected routes are already expected to be low, the magnitude of impact of associated redistribution in response to the STS package of interventions is unlikely to have a significant effect on the wider network.

RESPONDING TO NEW TRANSPORT GUIDANCE

- 8.5.2. The LTN 1/20 guidance is relatively new and local authorities are still becoming accustomed to its application and whilst the guidance is relatively clearly defined for urban areas, there is scope for differing interpretations in respect of rural roads. Norfolk being predominantly a rural county, is seeking guidance via Sustrans and Transport East on how this specifically applies to rural routes.

LANDOWNER AGREEMENT

- 8.5.3. Throughout the design process, there has been dialogue with local landowners, to ensure they are aware of how the proposals may affect their landholding. Final agreement will need to be sought when the design for the complementary package of measures are completed.

CONSTRUCTION PHASE

- 8.5.4. During the construction phase, there will be potential risks to Non-Motorised User, vulnerable users and those with protected characteristics. All efforts will be made to ensure that access to Public Rights of Way and other existing pedestrian, cyclist and equestrian infrastructure remains open and available for use, where possible. A full assessment will be provided in the TA and Environmental statement and mitigation will be provided via a Construction Environmental Management Plan which will specify (amongst others):
- Access routes to site for construction traffic;
 - Time of site operation;
 - Construction phasing;
 - Import and export of materials;
 - Locations of earthworks and borrow pits;
 - Abnormal load delivery arrangements;
 - Location of site compounds and access tracks;
 - Pedestrian, cycle and equestrian diversion routes;
 - Temporary closure of sideroads during construction;
 - Temporary Stopping up and diversion of Public Rights of Way;
 - Temporary Traffic Regulation Orders;
 - Temporary Traffic Management;
 - Measures to minimise noise impacts;
 - Measures to attenuate dust arising during construction; and
 - Co-ordination with Highways England works to construct the A47 dualling.

ØRSTED HORNSEA PROJECT 3 CABLES

- 8.5.5. Ørsted Hornsea Project Three (UK) Ltd submitted a DCO application to the Planning Inspectorate in 2018 to secure permission to construct, operate and maintain a 300 turbine, offshore wind farm covering approximately 696 km². The DCO application was approved in December 2020 (<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/hornsea-project-three-offshore-wind-farm/>).
- 8.5.6. The routing of the onshore cables towards the Norwich Main National Grid Substation west of Dunston, would travel across the study area, through Morton, Weston Longville, Ringland, and Easton. The proposed route is shown in **Appendix F**. An option is also being considered to locate a construction compound along Honingham Road, within the former RAF Attlebridge airfield site.
- 8.5.7. There will be limited restrictions on farming over the cable route once instated, such as the prohibition of double depth ploughing, structures or tree planting. During construction, haul roads are expected to be laid down, with likely locations chosen to follow field boundaries to minimise the loss of productive agriculture. The cable routing may provide an opportunity to designate a PROW / cycleway over new maintenance access tracks to be laid in relation to the cable, with permission obtained from landowners to dedicate a PROW over the track. This is an option for further exploration but has not been assumed within the Outline Business Case for the scheme.

9 ACTIVE MODE BENEFITS AND MODE SHIFT

9.1.1. The benefits of including the proposed Sustainable Transport Strategy in the Norwich Western Link scheme are required to be incorporated into the Outline Business Case (OBC).

9.2 ACTIVE MODES ASSESSMENT TOOL INPUTS - NMU STRATEGY

9.2.1. An Active Modes Assessment Tool (AMAT) has been used to quantify the wide range of benefits that cycling and walking interventions can bring, compared between a 'Do Minimum (DM)' and 'Do Something (DS)' scenario.

9.2.2. A 15% NMU uplift has been used to factor up existing trips to 2025 levels based on NTS Journey to Work (JtW) data for the East of England observed change in cycle mode share since 2011 to 2019 extrapolated to 2025.

Table 9-1 - Do Minimum - AMAT Scenario

Route	Output Areas	Area	Census JtW Cycling	Census JtW Walking	Census JtW Work from Home	NMU Observed Trips	Total NMU Trips	NTS uplift to 2025 DM
RB1 / The Broadway	E00134783	Honingham	3	2	32	2	44	51
Breck Road / Weston Road	E00134786	Weston Longville	8	5	36	23	85	98
Ringland Lane / FP1	E00134778	Attlebridge	1	7	27	34	77	89
Blackbreck Lane	E00134784	Ringland	2	4	20	2	34	39
Total			14	18	115	61	240	277

9.2.3. The above table summarises the Do Minimum Scenario (i.e. the number of trips potentially using the local PROW network within the immediate vicinity of the scheme without the NWL in place). This is to be compared with the proposed Do Something scenario as set out below in **Table 9-2**. The uplift to the future opening year in the DoSomething scenario is based on the PCT government target scenario for Norfolk, which is consistent with the 'Gear Change' policy of doubling cycling across the UK.

9.2.4. For the local area, since the existing network is relatively fragmented, it is assumed that the government target would only be met in the event that new infrastructure is provided. The NWL scheme contributes towards joining up and increasing the length of PROW routes available, a distance-based uplift is therefore applied in the calculation based on the extent to which the length of PROW available within each output area is extended.

Table 9-2 - Do Something - AMAT Scenario

Route	Output Areas	Area	Census JtW Cycling	Census JtW Walking	Census JtW Work from Home	NMU Observed Trips	Total NMU Trips	NTS uplift to 2025 DM
RB1 / The Broadway	E00134783	Honingham	3	2	32	2	44	151
Breck Road / Weston Road	E00134786	Weston Longville	8	5	36	23	85	270
Ringland Lane / FP1	E00134778	Attlebridge	1	7	27	34	77	243
Blackbreck Lane	E00134784	Ringland	2	4	20	2	34	75
Total			14	18	115	61	240	740

9.2.5. Comparing the above **Table 9-1** and **Table 9-2** indicates that the proposed NMU strategy is capable of supporting an extra 464 trips per day over and above the Do Minimum scenario.

9.3 AMAT SCENARIO INPUTS – CYCLE FRIENDLY ROUTES

9.3.1. Population data from 2011 Census has been used as the starting point, with an assumption of household occupancy of 2.3 people per dwelling (based on the average Household size for Norfolk area E10000020 taken from Table HO1UK from the 2011 UK Census), along with an assumed trip rate of 8 trips per household per day (data on all day trip rates per household taken from TRICS 7.7.4 (2021) with residential sites selected in England outside London, excluding town centre sites and excluding sites with population of more than 20,000 residents within 1 mile).

9.3.2. The Walking and Cycling mode shares from the above PCT table for Norfolk have been used for the three crossing options (1-3) and the cycling mode shares only have been used for the cycle friendly route options (4-8). For the crossing options, 40% of NMU (Non-Motorised User) trips are assumed to be on routes that would be catered for and for the cycle route options, 30% of trips are assumed to be on the desire line. Trip rates and mode shares for the baseline (Do Minimum) scenario are shown in **Table 9-3**.

Table 9-3 - Do Something - AMAT Scenario

Option	Population	HH	All trips per day	% trips on Desire Line	%NMU PCT census	NMU trips per day	2025 NTS forecast (+15%) DM
Option 1	200	87	696	40%	17%	46	53
Option 3	1,272	553	4,424	40%	17%	296	340
Option 4	7,420	3,226	25,809	30%	5%	379	436
Option 5	5,122	2,227	17,816	30%	5%	262	301
Option 7E	14,320	6,226	49,809	30%	5%	732	842

9.3.3. For comparison, the process has been repeated for the Do Something scenario, taking the PCT forecast mode shares for Government Target scenario as shown below in **Table 9-4**.

Table 9-4 - Trip Rates and Mode Shares for the Do Something (with NWL) Scenario

Option	Population	HH	All trips per day	% trips on desire line	%NMU PCT Govt Tgt	NMU trips per day	2025 NTS forecast (+15%) DS
Option 1	200	87	696	40%	19%	54	62
Option 3	1,272	553	4,424	40%	19%	342	393
Option 4	7,420	3,226	25,809	30%	8%	635	730
Option 5	5,122	2,227	17,816	30%	8%	438	504
Option 7E	14,320	6,226	49,809	30%	8%	1,225	1,409

9.3.4. Comparing the Do Something and Do Minimum scenarios shows the following changes in daily trip making as a result of the options as shown in **Table 9-5**.

Table 9-5 - Comparison of Do Something and Do Minimum Results

Option	2025 DM	2025 DS	2025 DS New Trips
Option 1	53	62	8
Option 3	340	393	53
Option 4	436	730	294
Option 5	313	524	203
Option 7E	842	1,409	567
Total	1984	3118	1125

9.3.5. The above results show that 1,125 daily new trips would be able to be supported by the proposed cycle friendly route options.

9.4 SOCIO-ECONOMIC EFFECTS FOR PUBLIC TRANSPORT

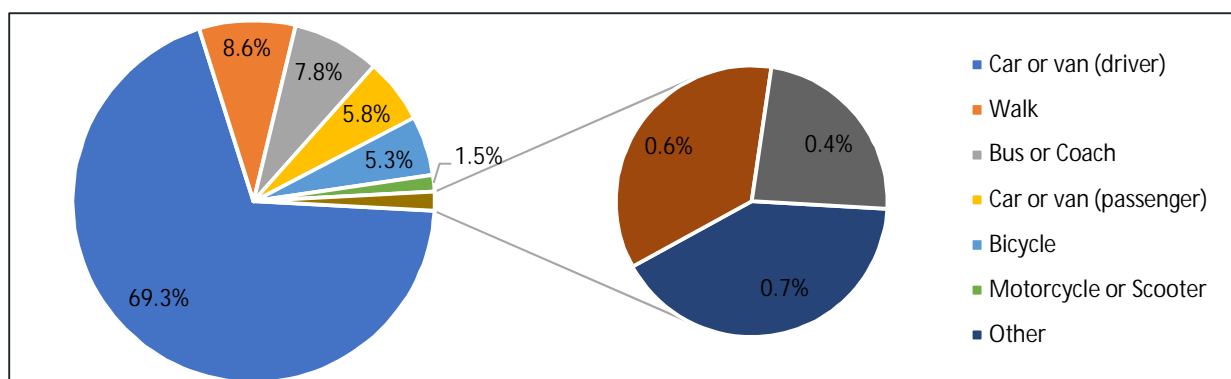
9.4.1. This has not been assessed within the OBC as the public transport options are still under development and there is uncertainty around future bus operating costs and viability due to COVID-19 impacts on bus services throughout 2020 and 2021. However, a preferred option will be selected based on historic trends and taken forward in consultation with bus operators. Both options have been shown to be able to achieve potential viability within year one (if market conditions return to 2011 levels) but if subsidy is required to kick start the service local funding would be used to support an initial trial of the service.

9.4.2. Based on feedback from the Local Access Consultation and Transport for Norwich Strategy 2018 update surveys, a direct bus service which avoids the need for residents in the west of Norwich to travel into the city centre and change buses to access the hospital and key employment sites in the west would be welcomed by local residents. This would offer residential areas in the north west urban fringe of Norwich (e.g. Thorpe Marriott, Taverham, Drayton etc) a substantial improvement in accessibility to key facilities such as schools in Taverham and Costessey, shops at Longwater, Roundwell Medical Centre and the NNUH hospital as well as key employment sites such as NRP and UEA. Journey times by bus would be considerably reduced and the traffic relief on the Taverham to Costessey Option A route provided by the NWL highway scheme would also contribute towards delivering a reliable bus service.

9.5 ANTICIPATED MODE SHIFT

9.5.1. Existing mode shares from the UK Census 2011 data on Method of Travel to Work has been interrogated to understand existing travel patterns within the area to the west of Norwich. **Figure 9-1** indicates the mode share for all usual residents aged 16 to 74, excluding those who work from home or are unemployed. Approximately three-quarters (75.1%) of residents within the NWQ travel to work by car, as either a driver (69.3%) or a passenger (5.8%).

Figure 9-1 - mode – Modal share for journeys to work



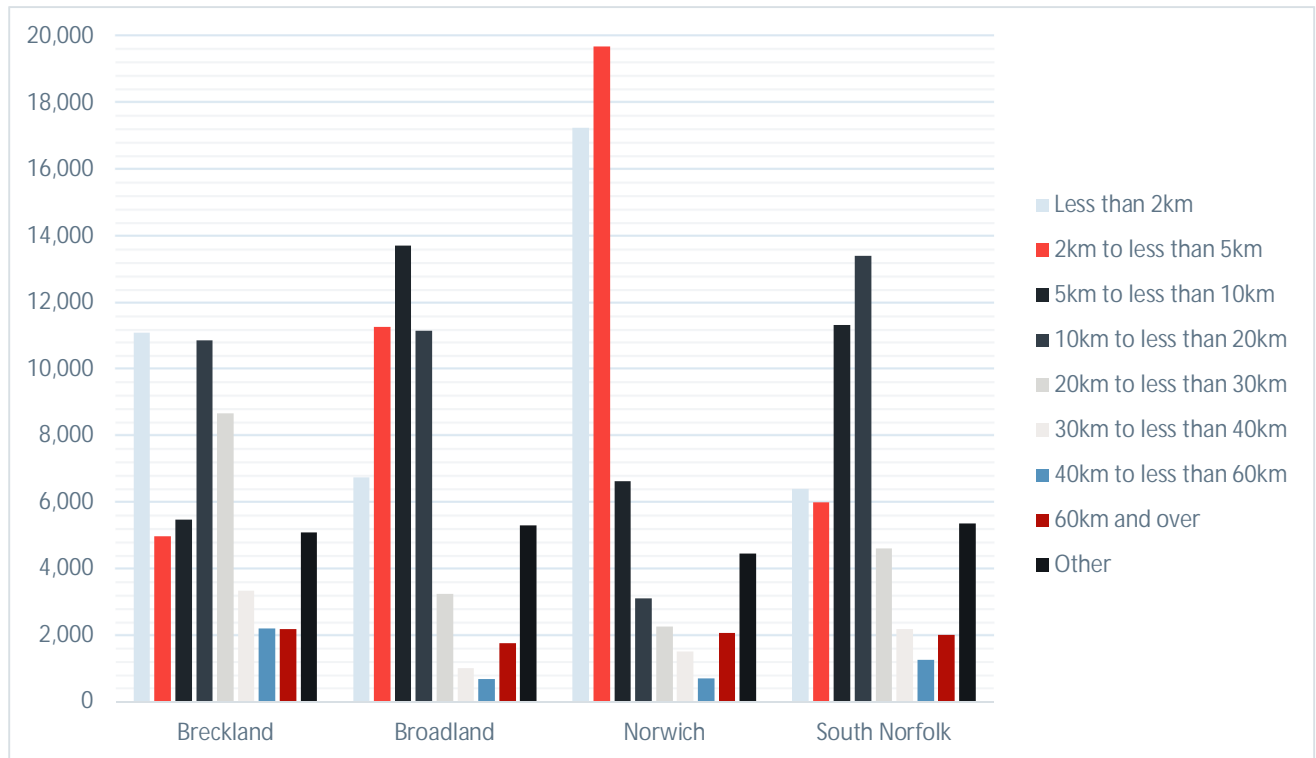
Source: 2011 Census

9.5.2. Due to the rural nature of the study area, it is understandable that a high proportion of trips are currently made by car, with sparsely populated settlement patterns which are often difficult and

inefficient to serve by public transport and more than 60% of trips in longer distance bands (as shown below in **Figure 9-2**) beyond easy walking and cycling distance.

- 9.5.3. Distance travelled to work 2011 Census data has been gathered from ONS for the four administrative boundaries of Breckland, Broadland, Norwich and South Norfolk, to establish the current travel patterns across the study area. The category ‘work mainly at or from home’ has been removed from our analysis.

Figure 9-2 - Distance Travelled to Work



Source: Table QS702EW, Office for National Statistics, 2011

- 9.5.4. The above graph shows that in total 38% of residents travel no more than 5km to work. This distance can easily be travelled by bicycle, indicating that there is potential for mode shift in the shorter distance bands. The measures proposed within the Sustainable Transport Strategy are intended to encourage and support travel by non-car means and with promotion and monitoring should help to persuade residents to travel more sustainably. Therefore, increased access to safe walking routes, joined up cycling routes, combined with more direct and frequent bus services as proposed within this document, should allow for a reduction in personal vehicle use for shorter trips.
- 9.5.5. Assumptions consistent with the Norfolk dataset for the PCT (Propensity to Cycle Tool) indicate that a mode shift to walking and cycling in response to the proposed Cycle Friendly Route options and NMU strategy is likely to reduce the car driver percentage mode share within the study area by 3% in the government target scenario.
- 9.5.6. The PCT assumptions for Norfolk in the Government Target scenario have been applied to reach a Do Something scenario with the NWL scheme in place. This indicates a total increase of 1,125 daily cycling trips and 464 daily walking trips within the study area (i.e. 1,589 total daily NMU journeys).

- 9.5.7. The viability assessment for the bus strategy demonstrates that the scheme is also capable of intercepting a further 234 daily journeys by bus (taking the Option A scenario without proposed residential development as a robust assessment).
- 9.5.8. Assuming an average trip length of 1km for NMUs, 3km for cycles and 5km for bus users, the proposed package of STS measures is capable of saving around 5,009 vehicle km per day. Applying an annualisation factor of 300 days per year, gives a total of 1,502,700 vehicle km per annum.

9.6 ECONOMIC PERFORMANCE

- 9.6.1. The costs associated with the NMu Strategy are largely an integral part of the scheme design (for example, the proposals make use of green bridges and underpasses which are needed for ecological and topographical alignment purposes and new Public Rights of Way are dedicated over proposed maintenance tracks that would be needed in any case). Hence the strategy increases the benefits of these scheme components without substantially adding cost.
- 9.6.2. Whilst there are some additional Public Rights of Way diversions and new sections of off-road tracks to be installed, the NMu elements are already embedded within the overall tender pricing for the Highway scheme.
- 9.6.3. The package of 'Cycle Friendly Routes' and pedestrian and cycle crossing facilities have an additional cost but where possible the options shortlisted for inclusion make use of additional public highways where traffic relief is to be provided by the NWL highway scheme, with modest enhancements to control vehicle speeds, in accordance with LTN 1/20 guidance. These improvements aim to make best use of existing infrastructure on key desire lines. This approach minimises cost, land take and environmental impact. All of the shortlisted options were considered in a high-level multi-criteria sifting process which scored costs against benefits. The proposed shortlist of options taken forward were selected on the basis that they would offer medium to high value for money.
- 9.6.4. The impacts on Physical Activity has been assessed with DfT's AMAT for shortlisted options. As a result of the Sustainable Transport Strategy the NWL is forecast to have a beneficial impact of £8.9 million. This indicates a BCR in excess of 2.0 which is high value for money.

9.7 CARBON SAVINGS

- 9.7.1. The greenhouse gases appraisal for road transport emissions has been undertaken in accordance with TAG Unit A3 'Greenhouse Gases'. The calculations are based on the traffic forecasts for the do-minimum and do-something model scenarios for 2025 (opening year) and 2040 (design year), as generated by the NATS traffic model for the OBC. Non-traded CO₂e emissions (petrol and diesel vehicles) and CO₂e traded emissions (electric vehicles) have been calculated in accordance with DMRB LA 114 'Climate' methodology.
- 9.7.2. Based on a reduction of approximately 1.5 million vehicle kilometres in the opening year of 2025 in comparison with the Do-Minimum scenario (as set out in paragraph 9.5.8 above), over the 60-year appraisal period, the financial benefit in terms of carbon savings from mode shift to sustainable modes as a result of the NWL Scheme is estimated at approximately £600,000.

10 CONCLUSION

10.1 SUMMARY

- 10.1.1. This Sustainable Transport Strategy has been developed alongside the main NWL highway design proposals and presents a range of measures in the immediate vicinity of the NWL and within a suitable radius of the new road at a more strategic level. The proposed measures provide a complementary package of interventions to support the sustainable travel objectives of the NWL. The proposals also fit well with the aspirations of the Transport for Norwich strategy which seeks a mode shift away from private cars and improvement in air quality. There are opportunities for geographical linkage where the NWL and TfN projects interface at the western fringe of Norwich. This offers a combined strategy which offers good synergy with wider sustainable transport proposals across Norwich.
- 10.1.2. The package of measures would encourage mode shift away from private car use by providing the means to travel sustainably by cycle, on foot or by bus, as well as linking up the existing network of Public Rights of Way to maximise local connectivity for pedestrians, cyclists and equestrians. An Equalities Impact Assessment is being carried out at each stage of the project to ensure that the proposals do not discriminate against those with protected characteristics.

10.2 INPUT FROM STAKEHOLDERS AND LOCAL RESIDENTS

- 10.2.1. The Strategy has been shaped by on-going public and stakeholder liaison to generate a package of complementary measures that will be of the greatest benefit to local users. Further engagement events are to be held as the project continues to evolve to ensure that the project is as transparent as possible.

10.3 KEY BENEFITS

- 10.3.1. The complementary measures will provide enhanced access to the Public Rights of Way network, with the standard of routes improved and the existing fragmented network would be joined up. Routes would connect to the Broadland Northway at the northern end, and to routes crossing the A47 at the south, connecting the villages of Honingham, Ringland and Weston Longville; the Marriott's Way; Costessey Park & Ride; Norwich Research Park; Taverham; and Drayton. The measures are forecasted to increase the number of walking and cycling trips across the study area by making the route attractive and safe for users, as well as logically placed to connect key amenities. The local roads across the wider area are also expected to receive levels of traffic reduction which would help to make walking and cycling on the carriageway more attractive (supported by additional speed management measures where appropriate).
- 10.3.2. A Bus Strategy has been produced to connect key residential and employment areas to the west of Norwich with those in the city centre. The Bus Strategy will complement other aspects of the STS and make use of routes that will experience lower traffic levels following construction of the NWL, making bus travel more attractive for use and improving journey time reliability. There is on-going collaboration with bus operators to ensure that the service would be competitive and operate suitable frequency to be financially viable.

- 10.3.3. The Side Road Strategy has been developed under the umbrella of the STS to deter rat-running through local villages close to the scheme and protect residential amenity. This has been tested with Local residents via a Local Access Consultation in July 2020 which indicated good levels of support for the closure of existing roads crossing the NWL, other than Ringland Lane.
- 10.3.4. Economic Benefits of the proposed STS have been assessed and this indicates that the scheme contributes towards encouraging more healthy and active lifestyles with monetised benefits of £8.9 million and a BCR in excess of 2.0 which indicates the STS offers High Value for Money.
- 10.3.5. There are also expected to be carbon savings from the proposed package of measures, due to an equivalent of 1.5 million vehicle kms in the opening year of 2025 following construction, making it more efficient to travel from / to the west of Norwich by non-car means. Over the 60-year appraisal period this would offer a financial benefit of approximately £600,000.

10.4 MEETING SCHEME OBJECTIVES

10.4.1. The Sustainable Transport Strategy contributes to meeting the objectives listed below and enables the NWL scheme to satisfy the full range of high level and strategic objectives:

- High Level Objectives
 - **H1** - Support sustainable economic growth;
 - **H2** - Improve the quality of life for local communities;
 - **H3** - Promote and improved environment; and
 - **H4** - Improve strategic connectivity with the national road network
- Strategic Objectives
 - **S1** - Improve connectivity and journey times on key routes in Greater Norwich;
 - **S2** - Reduce the impact of traffic on people and places within the western area of Greater Norwich;
 - **S3** - Encourage and support walking, cycling and public transport use;
 - **S4** - Improve safety on and near the road network, especially for pedestrians and cyclists;
 - **S5** - Protect the natural and built environment, including the integrity of the River Wensum SAC; and
 - **S6** - To improve accessibility to key sites in Greater Norwich.

10.5 KEY RISKS

- 10.5.1. With increased traffic restrictions/lower speed limits, the proposed interventions may cause additional traffic redistribution which has yet to be modelled within the strategic transport model. However, since in most cases, the forecast link flows on the affected routes are already expected to be low, the magnitude of impact of associated redistribution in response to the STS package of interventions is unlikely to have a significant effect on the wider network.
- 10.5.2. Furthermore, the implications of LTN 1/20 guidance is relatively new and local authorities are still becoming accustomed to its application and whilst the guidance is relatively clearly defined for urban areas, there is scope for differing interpretations in respect of rural roads. As the study area is predominantly rural, the project team is seeking guidance via Sustrans and Transport East on how this can be specifically applied to rural routes.

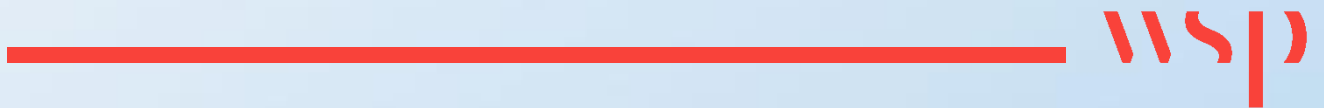
- 10.5.3. There is also a risk that as the measures are developed further the estimated costs could fluctuate. This is dealt with in the quantitative risk assessment included in the Outline Business Case.

10.6 NEXT STEPS

- 10.6.1. The measures within the Sustainable Transport Strategy will be subject to further development with input from key stakeholders, so that a suitable level of detail is available for planning submission.
- 10.6.2. The Transport Assessment will consider sensitivity testing for the NWL scheme with the final proposed set of mitigation measures and sustainable transport interventions included in the NATS model.
- 10.6.3. Further engagement with stakeholders and landowners will continue to inform the scheme development, including advice from Sustrans and other groups on the application of LTN 1/20 guidance to the rural context.
- 10.6.4. The costs of the NMU elements will be already included in the scheme tender price from the preferred contractor. However, additional work will be carried out to refine the costs of the STS measures as the detail is worked up moving forwards through the design process.
- 10.6.5. This document will be included as part of the OBC submission but will continue to be updated and reviewed as the project develops, such as for planning purposes.

Appendix A

LOCAL ACCESS CONSULTATION BROCHURE & REPORT





Local Access Consultation



**Monday 27 July
to Sunday 20
September 2020**

www.norfolk.gov.uk/nwl

Introduction

With significant job and population growth anticipated in the Greater Norwich area, it's vital we have the transport infrastructure in place so communities can grow successfully and people and goods can get where they need to go safely and efficiently.

Creating a Norwich Western Link to connect the western end of Broadland Northway (formerly the Northern Distributor Road) to the A47 is one of Norfolk County Council's top infrastructure priorities. Since before Broadland Northway fully opened in spring

2018, there have been calls to fill in what many people saw as the 'missing link' between where the new dual carriageway road ends at the A1067 Fakenham Road and the A47.

Together with the A47 dualling between North Tuddenham and Easton, due to start construction during 2022, the 3.8 mile Norwich Western Link would complete a dual carriageway orbital route around Norwich. This would reduce the need for traffic to enter the city and alleviate local transport issues to the west of Norwich.

Work to date

Our first Norwich Western Link consultation in summer 2018 showed there was strong support for creating a new road link between the A47 and Broadland Northway west of Norwich.

Following this, we assessed more than 80 options that could address the transport problems that exist in the area to the west of Norwich and reduced these down to a shortlist of four road options. We held a further public consultation on these options from November 2018 to January 2019 and considered the responses alongside other crucial information – such as transport benefits, environmental data and effects, value for money and impacts on local communities – to agree a preferred route in July 2019.

Since last July, we've been doing a lot of work to develop the design of the route and progress the project, including:

- » **Further surveys to continue building on our knowledge and provide up-to-date information to be taken into account in our decision-making on the project**
- » **Refining the alignment of the route to respond to further information gathered such as environmental constraints and to link in to the new A47 junction planned as part of the North Tuddenham to Easton dualling scheme being delivered by Highways England**
- » **Initial work on developing environmental mitigation and enhancement measures.**

In May 2020 the Department for Transport (DfT) approved our initial business case, which provided more than £1 million of development funding and means the Norwich Western Link has been given conditional entry into DfT's 'Large Local Majors' project funding programme.

Project objectives

There are many things we need to consider as we continue to work on our plans for the Norwich Western Link, including what we want it to achieve. We have therefore developed a set of objectives to guide our work. These are aligned with national and local policy and have taken account of the priorities of local residents.



Support sustainable economic growth



Improve the quality of life for local communities



Promote an improved environment



Improve strategic connectivity with the national road network



Improve connectivity and journey times on key routes in Greater Norwich



Encourage and support walking, cycling and public transport use



Reduce the impacts of traffic on people and places within the western area of Greater Norwich



Protect the natural and built environment, including the integrity of the River Wensum Special Area of Conservation



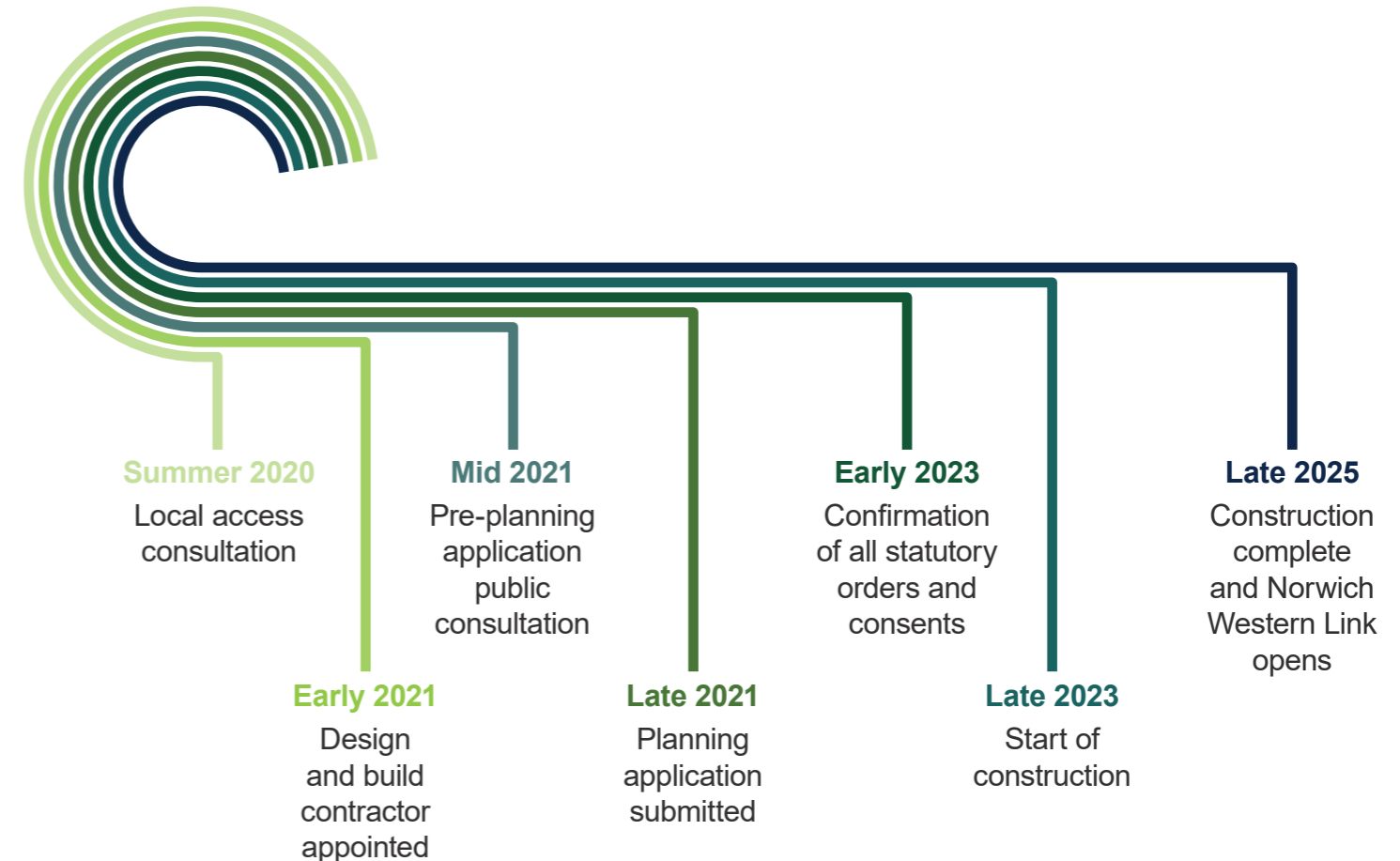
Improve safety on and near the road network, especially for pedestrians and cyclists



Improve accessibility to key sites in Greater Norwich

Project timeline

We are working to the following timetable, some of which is subject to all the necessary statutory processes for a project of this kind being completed.



Why are we consulting?

We began the process to find a contractor for the Norwich Western Link in June 2020 by advertising the opportunity. Once appointed, the contractor will be responsible for the design of the road and its construction.

Following the preferred route announcement and subsequent work to develop the project, we are now in a position to share some of our proposals and get people's feedback. We want to do this now so that this feedback can be taken into account and inform our ongoing work and the bidding contractors during the procurement process. The contractors will be expected to progress their proposed design for the Norwich Western Link in the run-up to one of them being appointed.

What's in this consultation?

This consultation will focus on local access in the vicinity of the Norwich Western Link for vehicles, cyclists, walkers and other users.

We want to gauge views and receive people's thoughts on our proposals for the local roads that cross the route of the Norwich Western Link. The project has been developed to have no junctions with local roads between the A1067 Fakenham Road and A47 so that it would be effective at preventing rat-running, reducing journey times and improving journey reliability.

We do however need to decide what to do with the local roads that cross the route in light of the new link road and how this will change the way people travel. We also need to consider impacts on Public Rights of Way in the area and how we should support people to get where they want or need to go via various means of transport.

To complement this, we would like to gain feedback on early proposals to support walking, cycling and public transport use across a wider area to the west of Norwich. Over shorter distances and between residential areas and key destinations, we're keen to support people to choose an alternative to getting in their car where practical.

We will also take the opportunity to share some details of the initial design that has been developed since the preferred route was agreed in July 2019.

In arriving at these proposals, we have considered the needs of all users to make what we're suggesting as inclusive as possible. We have already had a lot of really useful input from a range of groups and representatives including parish councils, walking and cycling groups, bus companies and others with an interest in local access and Public Rights of Way.

We're looking forward to hearing what you think and every response will be considered. Thanks in advance for taking the time to give us your opinions and insight.



What will be in the next consultation?

We intend to submit the planning application for the Norwich Western Link in 2021. Before then, we will hold another public consultation to gain feedback on the details of the scheme that we plan to include in the planning application.

The pre-application consultation will provide more detail about the project and include elements such as:



The design of the viaduct over the River Wensum

The route of the Norwich Western Link includes a 670 metre-long viaduct which will be designed and constructed so as to not affect the integrity of the River Wensum Special Area of Conservation. Due to the specialist design and construction methods required, the contractor will be responsible for developing these details following their appointment.

Traffic mitigation



The Norwich Western Link will reduce traffic congestion and rat-running on many local roads by creating a higher quality connection between the A47 and Broadland Northway. However all likely changes to how traffic will use the road network will need to be considered and we will also determine whether any traffic management measures are needed. We use traffic modelling to predict how traffic flows and movements are likely to alter as a result of the Norwich Western Link and other factors, such as dualling of the A47 and population growth. We're currently updating our traffic model to take account of new data and once complete, we'll use this to provide more details of the final design of the scheme and of any wider traffic mitigation measures.

Environmental mitigation



We are committed to building the Norwich Western Link in an environmentally-responsible way. Finding ways to limit the road's impact on wildlife, the landscape and local residents is a priority, and we will carry out an environmental impact assessment ahead of submitting the planning application which will inform what mitigation measures are needed and would be most effective. However current proposals for wildlife crossings along the Norwich Western Link are shown on the route map in these consultation materials.

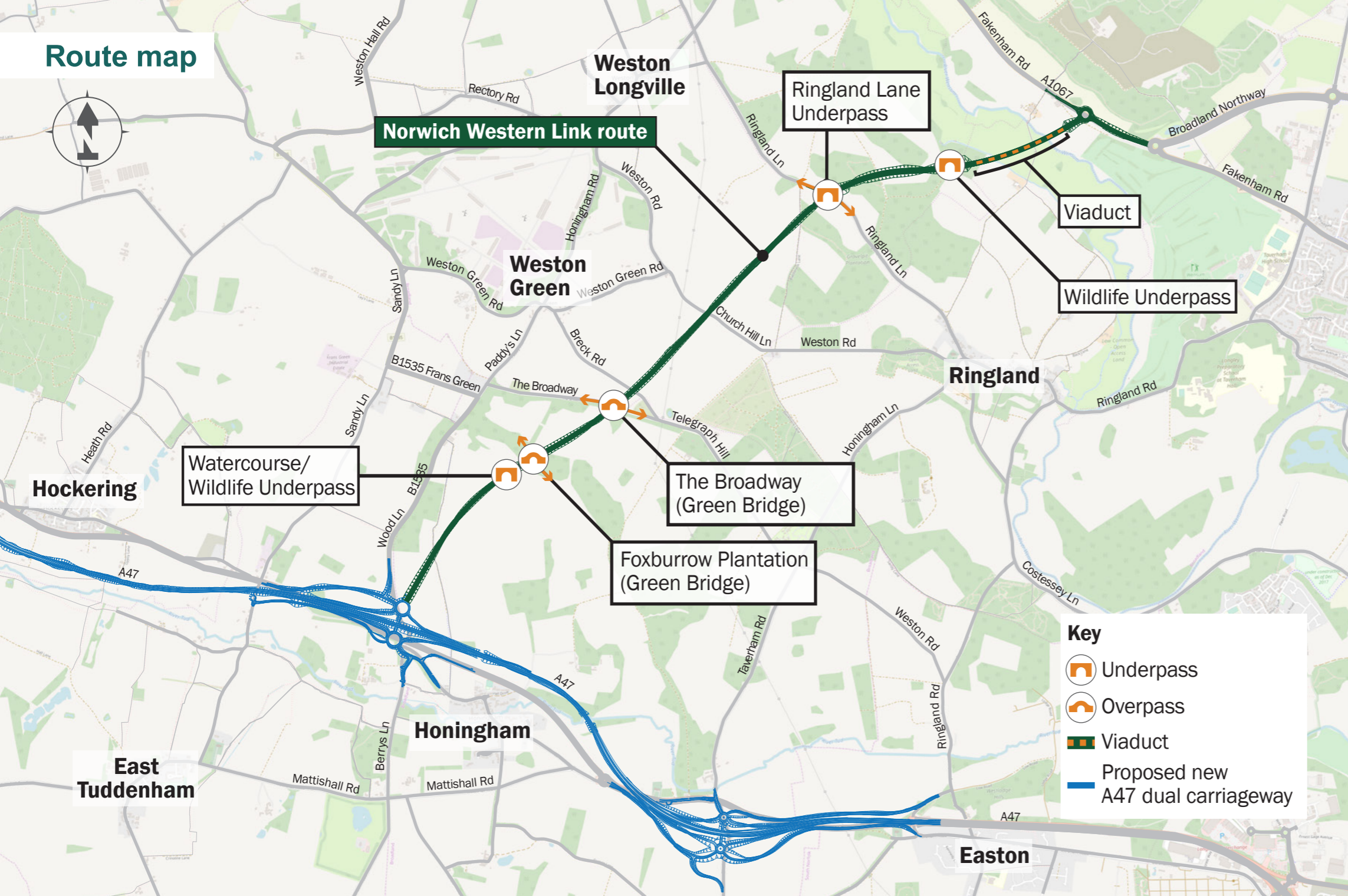
Improvements to the A47

Highways England are planning to replace the existing single carriageway A47 between North Tuddenham and Easton with a dual carriageway, and have indicated construction will start in 2022. A statutory consultation on their proposals for this stretch of road, which included the proposed junction into which the Norwich Western Link would connect, was held in spring 2020. Details of this proposed junction, and the other junction Highways England are proposing at Taverham Road and Blind Lane, are shown on the route map in these consultation materials.

We've been in regular contact with Highways England since our work on the Norwich Western Link began and we will continue to share information and work together to ensure we're taking account of each other's plans and to minimise potential disruption to local residents and people travelling through the area once construction begins.

Highways England are also planning to improve the A47/A11 Thickthorn interchange and dual the A47 between Blofield and North Burlingham.

Route map



Local roads that cross the Norwich Western Link

Four existing roads cross the route of the proposed Norwich Western Link. Our proposals for these roads are summarised below and more details on our proposals for each road are provided further ahead in these consultation materials. Please note that where we are proposing to close any roads, access to property will be maintained.

- **Ringland Lane** – two options: to keep the road open to all through traffic; or for it to be restricted to walkers, cyclists and horse riders only. Both options would see Ringland Lane cross under the Norwich Western Link.
- **Weston Road (a section of which is also known as Church Hill Lane)** – to be entirely closed to through traffic.
- **Breck Road (also known as Breck Lane)** – to be entirely closed to through traffic.
- **The Broadway** – kept open as a through route to walkers, cyclists and horse riders only via a green bridge over the Norwich Western Link, which would also serve as a wildlife crossing.

In developing these proposals, we have considered a number of factors, including: feedback from local parish councils; current usage of these roads and potential impacts on journeys across the wider transport network; local topography, environmental considerations and mitigation requirements, and value for money.

Illustrative profile of the Norwich Western Link within the existing landscape



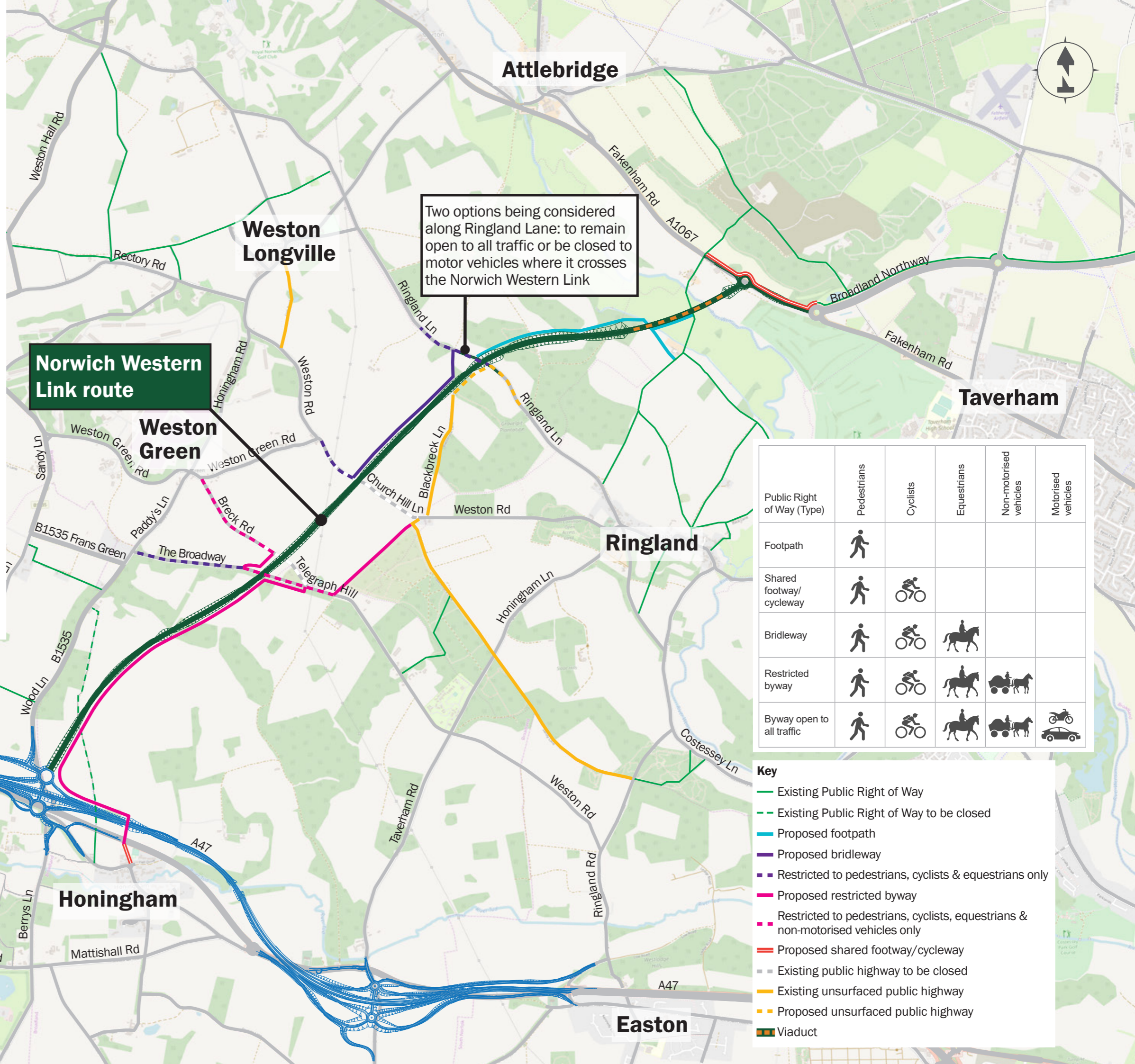
Please note: the vertical scale has been exaggerated for clarity.

Changes to Public Rights of Way close to the Norwich Western Link

To help encourage travel by more sustainable forms of transport, such as walking and cycling, we've been looking at how we could improve the Public Rights of Way close to the Norwich Western Link route. A Public Right of Way is a route over which the public have the right to pass - footpaths, bridleways, restricted byways and byways are all Public Rights of Way.

An overview of our proposals close to the route is shown here, and more detail is given further ahead in these consultation materials. In coming up with these proposals, we've sought ideas from representatives of local parish councils and others including walking, cycling and horse-riding groups. We have also been working with Highways England, so that our proposals at the southern end of the Norwich Western Link connect with theirs for the North Tuddenham to Easton dualling scheme. Together our plans will help people to safely cross the A47.

At the north end of the route we're proposing that the Public Right of Way which currently crosses the River Wensum is kept as a public footpath, for consistency with onward routes to which it connects and to avoid impacts on the integrity of the River Wensum Special Area of Conservation.



Two options being considered along Ringland Lane: to remain open to all traffic or be closed to motor vehicles where it crosses the Norwich Western Link

Norwich Western Link route

Public Right of Way (Type)	Pedestrians	Cyclists	Equestrians	Non-motorised vehicles	Motorised vehicles
Footpath					
Shared footway/cycleway					
Bridleway					
Restricted byway					
Byway open to all traffic					

- Key**
- Existing Public Right of Way
 - - Existing Public Right of Way to be closed
 - Proposed footpath
 - Proposed bridleway
 - Restricted to pedestrians, cyclists & equestrians only
 - Proposed restricted byway
 - Restricted to pedestrians, cyclists, equestrians & non-motorised vehicles only
 - Proposed shared footway/cycleway
 - Existing public highway to be closed
 - Existing unsurfaced public highway
 - Proposed unsurfaced public highway
 - Viaduct

Hockering

East Tuddenham

Honingham

Easton

Attlebridge

Weston Longville

Weston Green

Ringland

Taverham

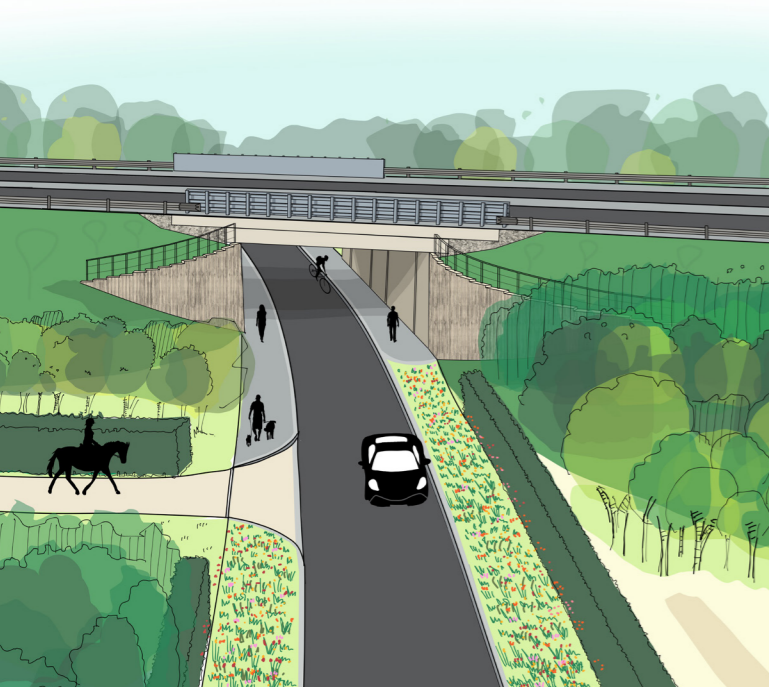
Proposals for Ringland Lane and nearby Public Rights of Way

Ringland Lane is a rural road connecting the villages of Ringland and Weston Longville. We are proposing to keep Ringland Lane open, but we would like your views on whether it should be either:

- » **Kept open to all traffic, including motor vehicles (as it currently is), with footways installed to improve pedestrian access and connectivity with the wider Public Rights of Way network, or**
- » **Restricted to walkers, cyclists and horse riders at the point where the road crosses the Norwich Western Link. This means Ringland Lane would become a no-through road to motorised traffic except for vehicle access to adjacent land and property.**

Due to its location in a natural dip in the landscape, a bridge would be built over Ringland Lane to take the Norwich Western Link across. The bridge would provide clearance of at least 5.3 metres from Ringland Lane so that, for example, farm vehicles from adjacent land could still use the route.

If Ringland Lane is closed to motorised through traffic, a restriction would be imposed over a short section of the existing carriageway on each side of the Norwich Western Link to prevent motor vehicle access, with a barrier, such as bollards or gates, preventing access for vehicles. Vehicular traffic would be diverted to the A1067 Fakenham Road. Suitable turning points would be provided on each side of the restriction.



Artist's impression of Ringland Lane kept open to all traffic (looking north west).



Artist's impression of Ringland Lane closed to motor vehicles where it passes under the Norwich Western Link (looking north west).

Why are we proposing this?

Ringland Lane forms part of our proposals to help people walk and cycle in the local area, with enhanced links to nearby Public Rights of Way. The proposed underpass at Ringland Lane would also provide connectivity for wildlife to habitats either side of the Norwich Western Link.

Traffic flows on Ringland Lane measured in October 2019 were around 360 users per day, of which around 10% were pedestrians, cyclists or equestrians. It is the widest and most frequently used route crossing the Norwich Western Link, with better visibility for road users and as a C class road, it is maintained to a higher standard. If Weston Road, Breck Road and the Broadway are all closed to motorised through traffic, a small number of vehicles may divert to Ringland Lane if it were kept open to traffic. However, with the dualling of the A47 in place and the creation of the Norwich Western Link, we expect the amount of motorised traffic on Ringland Lane would reduce in comparison with 2019 levels.

What other options could we consider?

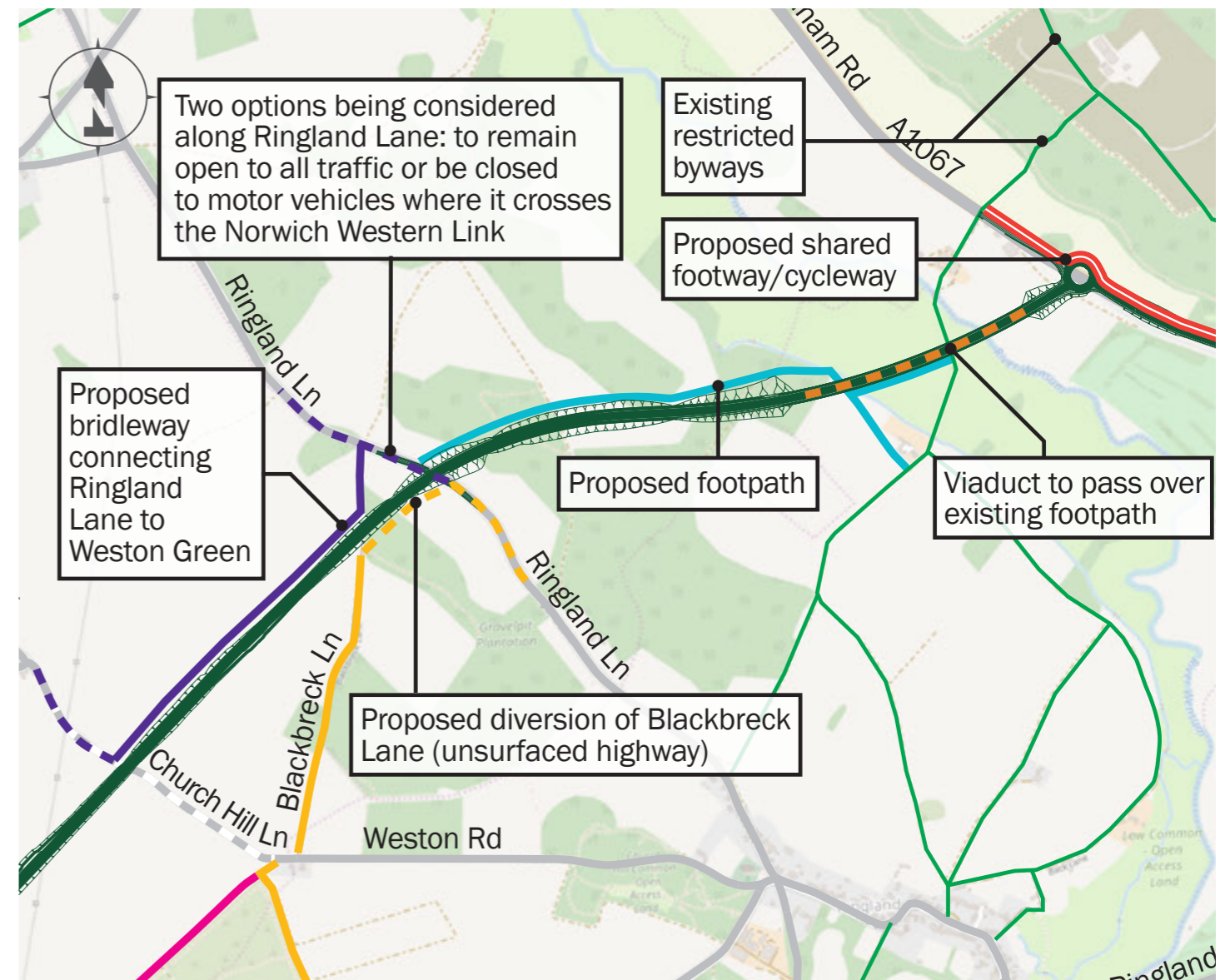
We could fully close Ringland Lane to all users. However, we are not proposing this as we want to maintain connectivity between the villages of Weston Longville and Ringland. Closing Ringland Lane entirely would also limit our ability to support walking and cycling in the local area. Due to the natural topography at Ringland Lane, it would not be feasible to reduce the height of the Norwich Western Link at this location even if Ringland Lane were closed to all users.

Nearby Public Rights of Way

In the vicinity of Ringland Lane, we are proposing the following changes to Public Rights of Way in order to improve connectivity:

- » **A shared footway/cycleway is proposed to the north side of the section of Fakenham Road. This would connect existing Public Rights of Way with the cycleway at Broadland Northway.**
- » **A new public footpath is proposed alongside the Norwich Western Link to provide a link to other existing footpaths around Ringland and close to the River Wensum.**
- » **On the north west side of the Norwich Western Link, a new section of bridleway would be provided, linking to the hamlet of Weston Green.**

An overview of the proposals for the Ringland Lane area is shown below.



Proposals for Weston Road (also known as Church Hill Lane) and nearby Public Rights of Way

In the centre of the route, Weston Road – a section of which is also known as Church Hill Lane – provides a connection between communities at Ringland and Weston Green.

We are proposing to permanently close Weston Road/Church Hill Lane to through traffic between Weston Green Road and Honingham Lane. The section to the west of the Norwich Western Link would be restricted to pedestrians, cyclists and equestrians only while the section to the east would be entirely closed approximately to the point where the road meets Blackbreck Lane. Access would be maintained to properties, businesses and agricultural land with access restrictions at either end.

With the Norwich Western Link in place the existing route between Weston Green and Ringland Hills would therefore be severed and vehicles would be diverted to alternative routes such as Ringland Lane (if it were kept open to all traffic), the A1067 Fakenham Road or the A47.



Weston Road near its junction with Honingham Lane at Ringland

Why are we proposing this?

The existing road is a narrow rural lane with limited forward visibility in places and the amount of traffic using it currently is low. Traffic flows on Weston Road were measured at around 80 users per day in October 2019, of which around 15% were pedestrians, cyclists or equestrians.

Based on existing levels of usage, installing a bridge to keep Weston Road open to through traffic would not represent good value for money and there is no requirement for habitat connectivity in this location.

What other options could we consider?

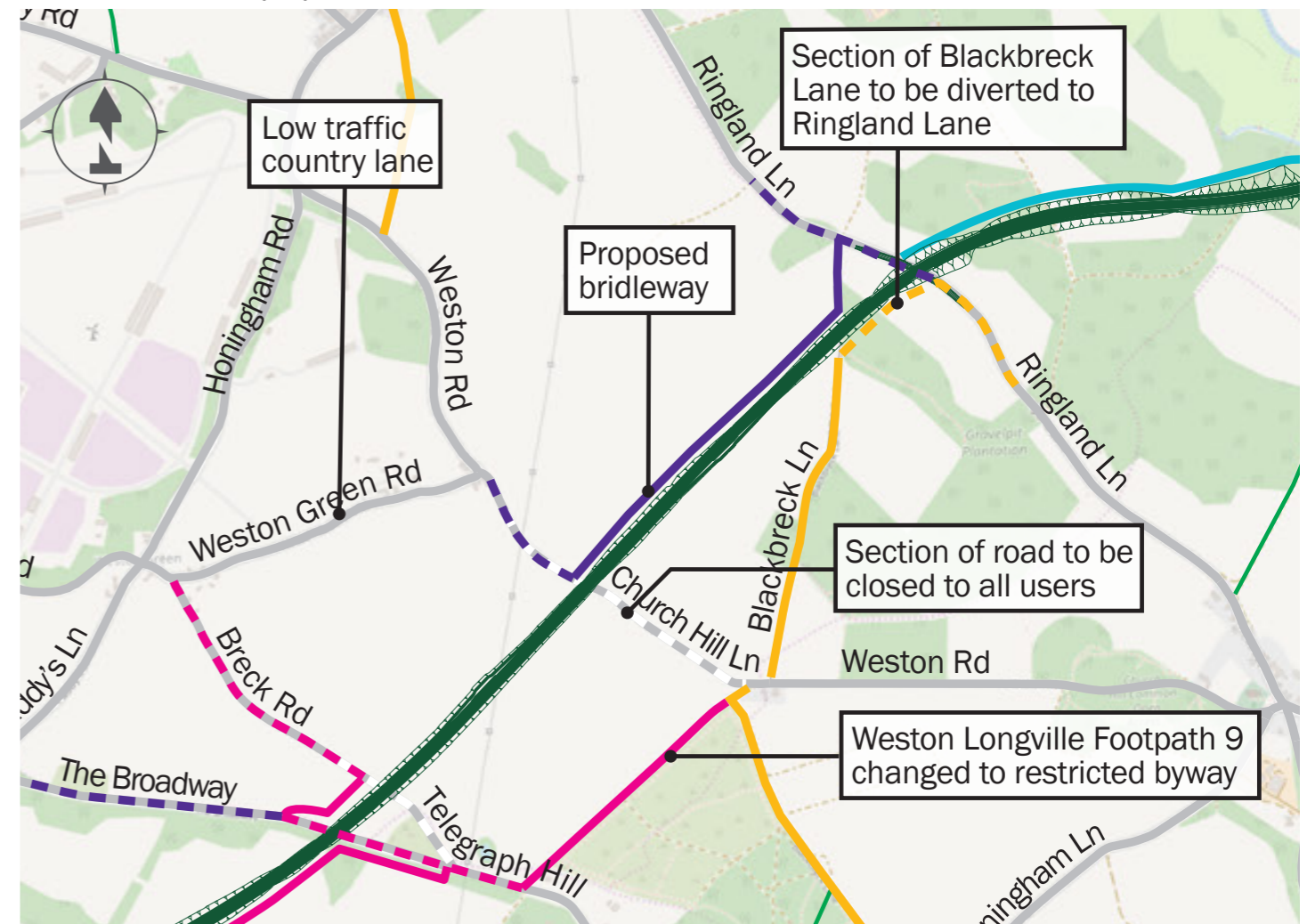
We could keep Weston Road/Church Hill Lane open to all through traffic, or to walkers, cyclists and horse riders only. However, we are not proposing this due to the low level of usage of this road and the ability of Ringland Lane to maintain connectivity across the Norwich Western Link more effectively. If Weston Road was to be maintained as a through road and an overbridge of the Norwich Western Link provided, there would be additional landscape and visual impacts due to the height of the new structure, in addition to the costs involved with constructing a new bridge.

Nearby Public Rights of Way

With Weston Road/Church Hill Lane closed to all users, we are proposing to provide upgraded walking, cycling and horse-riding routes parallel to the Norwich Western Link that would connect to crossing points further north and south:

- » **Weston Green Road is a tranquil rural route that is already attractive for non-motorised users due to its low traffic volumes. This would be promoted as a shared space between vehicles and other road users with appropriate speed limits defined and signage to warn vehicle users of cycles and pedestrians.**
- » **A section of an existing track (known as Blackbreck Lane) would be diverted to join Ringland Lane immediately to the east of the Norwich Western Link to prevent it being severed by the new road. Also on the eastern side, an existing public footpath (Weston Longville Footpath 9) would be changed to restricted byway standard so that it can also be used by, amongst others, cyclists and horse riders.**
- » **To the north west of the Norwich Western Link, a new section of public bridleway would be created to connect Weston Green with Ringland Lane.**

An overview of the proposals for the Weston Road area is shown below.

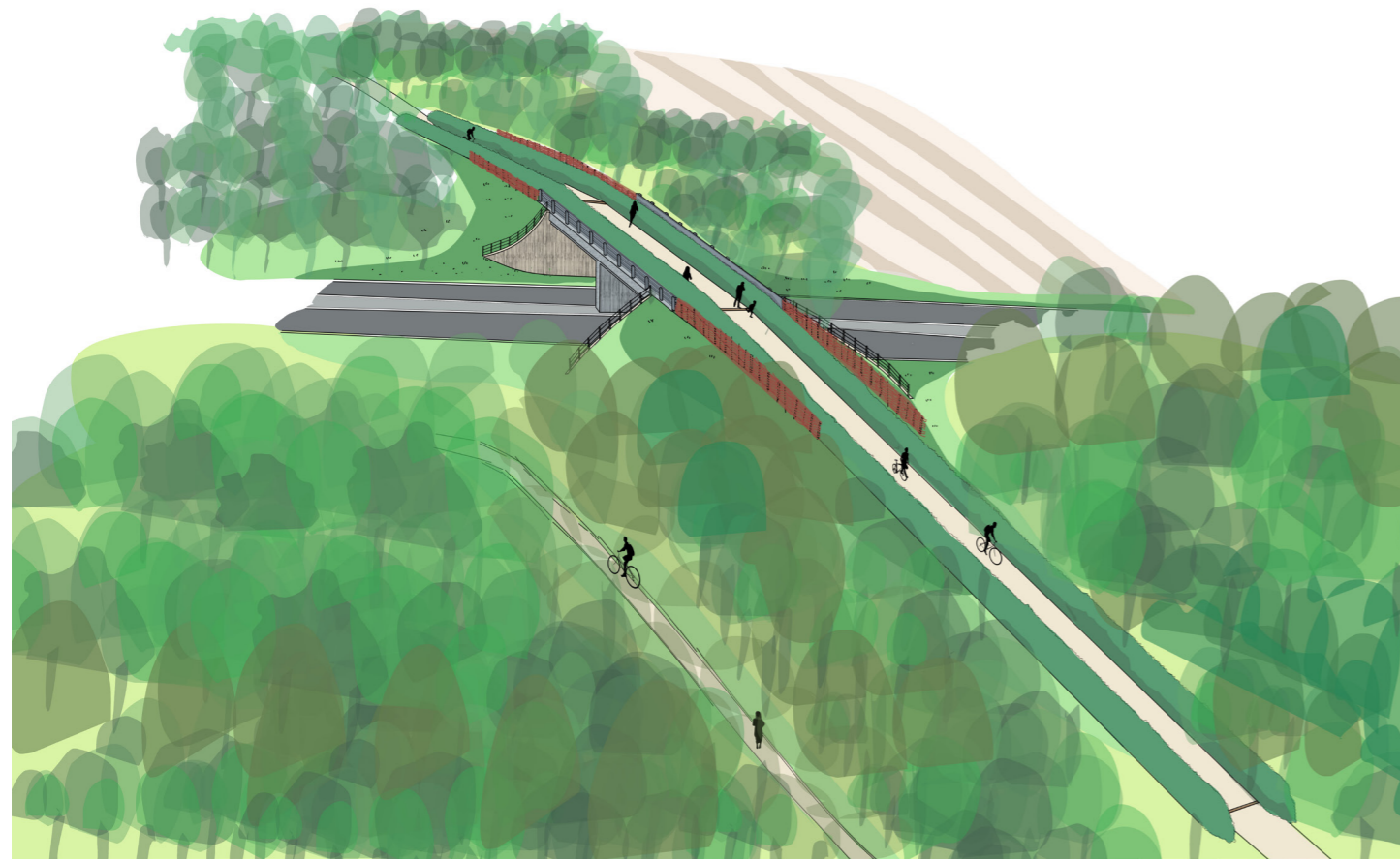


Proposals for Breck Road (also known as Breck Lane), The Broadway and nearby Public Rights of Way

Breck Road (also known as Breck Lane) and The Broadway are the southern-most roads crossing the Norwich Western Link route. The Broadway is a narrow, tree-lined, rural lane running broadly east-west from Telegraph Hill in the east to Paddy's Lane in the west. Breck Road is a narrow rural lane with restricted forward visibility in places. It runs broadly in a south-easterly direction from Weston Green, connecting with Telegraph Hill at its south-eastern extent. Breck Road becomes Telegraph Hill about 150m east of Weston Green Road.

We are proposing to close Breck Road to through traffic where it crosses the Norwich Western Link route, with access maintained to properties, businesses and agricultural land. To the west of the Norwich Western Link, Breck Road would be restricted to pedestrians, cyclists and equestrians only while the section on the east side, where the road becomes Telegraph Hill, would be closed entirely. Suitable turning facilities would be provided on Telegraph Hill on the east side of the Norwich Western Link.

We are proposing to close The Broadway to motorised through traffic (with a traffic restriction to allow property access only). A green bridge would be installed over the Norwich Western Link, with a clearance of at least 5.3 metres. The new bridge would create an environmental crossing for bats and other species, as well as pedestrians, cyclists and horse riders. Motorised through-traffic from both Breck Road and The Broadway would be diverted to alternative routes such as the A47 to the south.



Artists impression of The Broadway green bridge (looking west)

Why are we proposing this?

The Broadway has been identified as a key location to support habitat connectivity across the Norwich Western Link, which is why a green bridge is proposed in this location. This would also be available to walkers, cyclists and horse riders.

Surveys indicate that these routes carry a low volume of traffic currently, with Breck Road carrying about 90 users per day and The Broadway carrying about 20 users per day in October 2019. In both cases about 10% of the total users were pedestrians, cyclists or equestrians.

What other options could we consider?

We could keep Breck Road open to all through traffic, or to walkers, cyclists and horse riders only. However, we are not proposing this due to the low level of usage of this road, and the proximity of The Broadway, which will maintain connectivity. If an extra bridge was provided at Breck Road, there would be additional landscape and visual impacts, in addition to the extra construction costs.

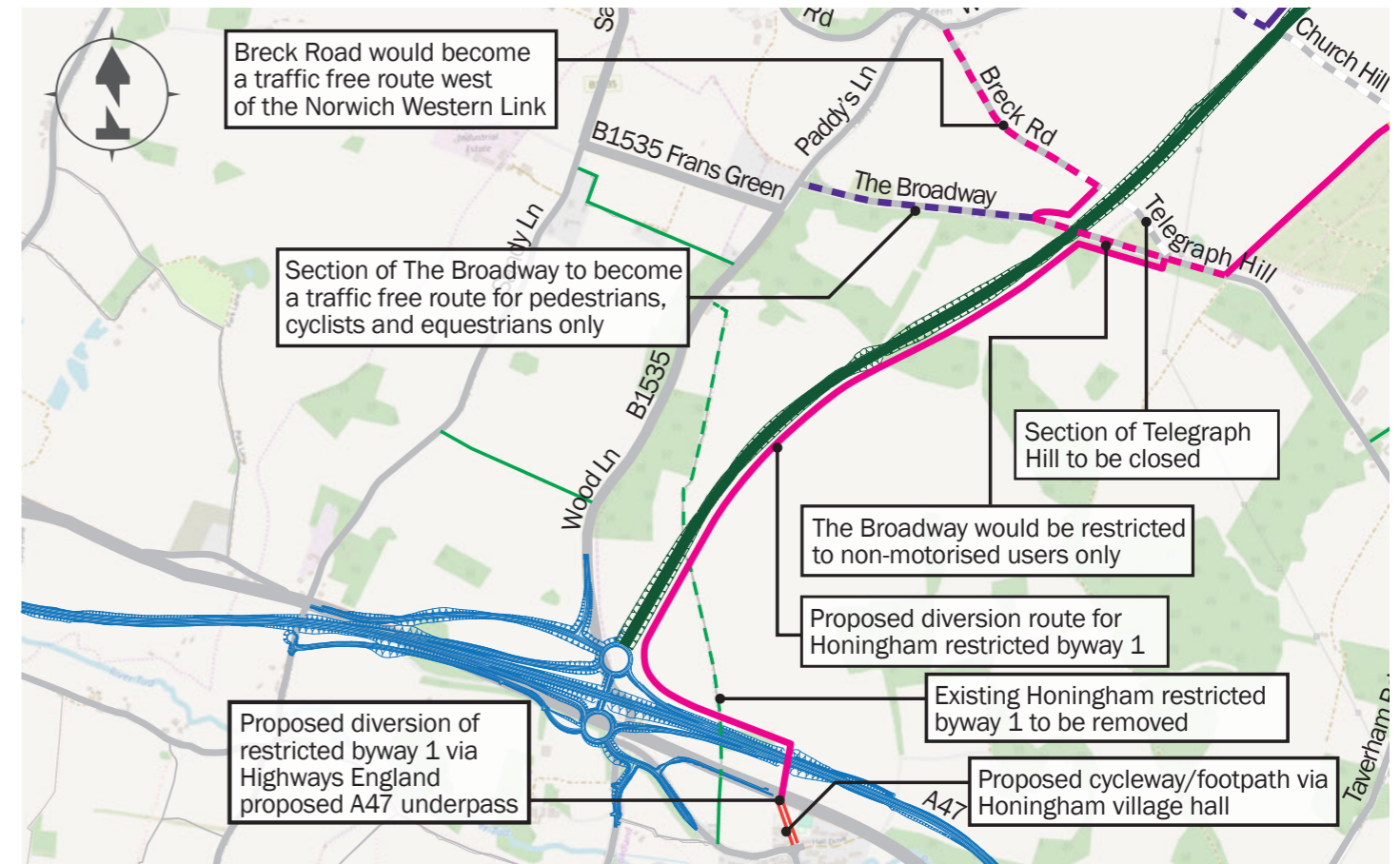
We could keep The Broadway open to vehicles. We are not proposing this due to the low level of traffic on this road. We could also prevent pedestrians, cyclists and horse riders from using the green bridge. However, we want to maintain connectivity for non-motorised users across the Norwich Western Link in key locations, both for local communities and for wildlife. Closing The Broadway entirely would also limit our ability to support people to walk and cycle in the local area.

Nearby Public Rights of Way

The following improvements are proposed in the vicinity of Breck Road and The Broadway:

- » **A new short section of restricted byway would be created alongside the west side of the Norwich Western Link, connecting Breck Road to The Broadway for pedestrians, cyclists and equestrians.**
- » **To the south of The Broadway, Honingham restricted byway 1 would be removed between Wood Lane and the former A47 and replaced with a new section of restricted byway along the east side of the Norwich Western Link. People using this route would be separated from traffic by landscape screening. This route would provide connectivity from The Broadway to a new underpass crossing of the A47 proposed by Highways England. The route would cross the former A47 and a new shared cycleway/footway access to Honingham village would be provided through the village hall overflow car park.**

An overview of the proposals for the Breck Road and The Broadway area is shown below:



Sustainable transport measures across the wider area

We want to build upon the benefits the Norwich Western Link road will create for pedestrians, cyclists and public transport and bring in some additional measures to support more sustainable forms of transport. This will complement the longer distance walking and cycling routes already introduced as part of Broadland Northway.

We've sought input and ideas from local parish councils and other groups to come up with some suggestions for ways we could support people to walk, cycle and use public transport – these are listed below and shown on the map opposite. We want to hear from you about which you think would be most effective so we can prioritise them for inclusion.

These potential measures would complement the Transport for Norwich project, which is making it easier to travel in and around the city, with a focus on clean and shared transport.

Potential measures

1 Create a new crossing facility on the A1067 Fakenham Road at Attlebridge to help pedestrians and cyclists cross safely and confidently.

2 Create a new pedestrian crossing on the A1067 Fakenham Road to connect Ringland Footpath 1, south of the A1067, with Attlebridge Restricted Byway 4, north of the A1067.

3 Create a new pedestrian and cycle crossing of Drayton High Road to improve connectivity with the Marriott's Way.

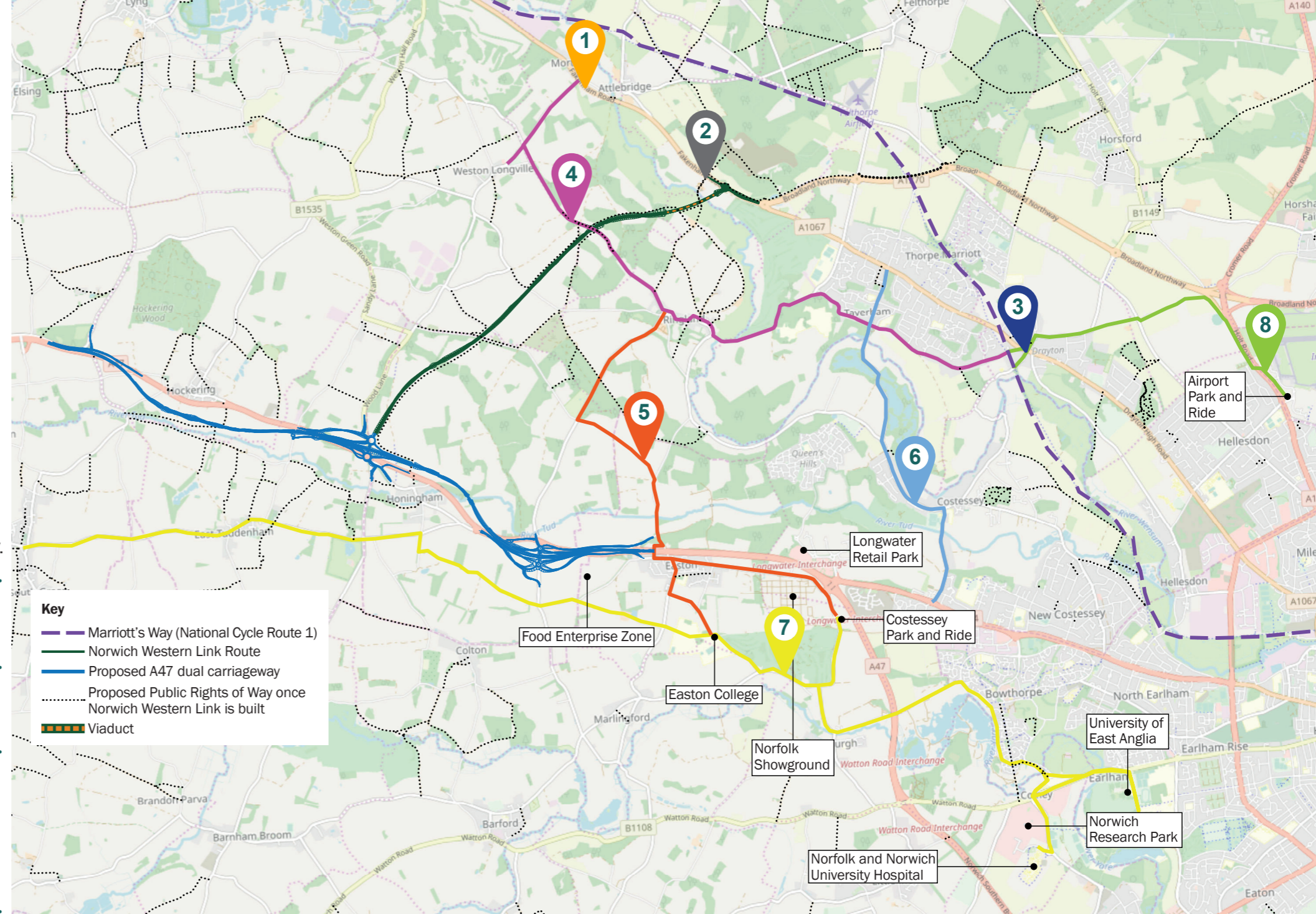
4 Create a cycle friendly on-road link towards central Norwich from Attlebridge and Weston Longville via Ringland and Taverham – improving cycle priority at junctions and on bridges on this lower traffic route would enhance access to schools and workplaces on the western edge of Norwich, and improve connectivity to the Marriott's Way (part of National Cycle Route 1).

5 Create a cycle friendly on-road link from Ringland to Easton. Once the Easton roundabout is removed as part of the A47 upgrade, this route would have lower traffic. Cycle safety could be improved at key junctions and pinch points. This would help to improve access to educational sites, such as Easton College, and Costessey Park and Ride site. Please note – providing this route is reliant on a new crossing of the A47, potentially a pedestrian and cycle bridge. However, provision of this crossing is not confirmed.

6 Create a cycle friendly on-road link from Taverham to Dereham Road – with the Norwich Western Link in place this route would have reduced traffic. Creating sections of cycle lane and introducing cycle priority measures at junctions would improve access to schools, shops and medical facilities and link to existing cycle paths on Dereham Road.

7 Create a cycle friendly on-road link south of A47 from Mattishall to the Norfolk and Norwich University Hospital and University of East Anglia – this route would benefit from reduced traffic once the nearby A47 is dualled. Introducing cycle priority measures would improve access between residential areas, medical facilities and employment areas, including the Food Enterprise Zone at Easton, Norwich Research Park and Costessey Park and Ride site.

8 Improve cycle parking at and access to the Airport Park and Ride site from Drayton – this would provide opportunities to access Park and Ride bus services by cycling and improve connectivity to the Marriott's Way and onward destinations in the western fringe of Norwich.



What difference could these measures make?

- » Make it easier for people to walk, cycle or get a bus to important local facilities such as schools, shops and medical centres
- » Help people, including those with reduced mobility or a disability, to safely cross busier roads
- » Improve the health and quality of life of local residents by making it easier to access the countryside and walk and cycle for pleasure
- » Contribute to efforts to improve air quality in communities and in urban and suburban areas
- » Support commuters to shift from using their cars, helping to take vehicles off the roads at busy times
- » Improve safety for pedestrians and cyclists, encouraging people to consider these as viable ways to travel
- » Make communities better connected and more pleasant places to live and visit

Bus strategy

We have been talking to bus operators about opportunities to improve bus services which could be supported by the Norwich Western Link.

Bus journey times would be likely to improve with the Norwich Western Link in place and congestion reduced on the existing road network. As a result, it may be viable for a bus operator to provide a new 'Western Arc' service through the more densely populated western suburbs of Norwich.

This would connect communities to medical facilities and employment areas including Norwich Research Park, the University of East Anglia (UEA) and the Norfolk and Norwich University Hospital (NNUH) without the need to travel into central Norwich to change buses.

We have identified two potential Western Arc bus service route options:

- » **Option A: Thorpe Marriott to NNUH/UEA via Taverham, Queen's Hills, Longwater and Bowthorpe.**
- » **Option B: Thorpe Marriott to NNUH/UEA via Drayton, Airport, Hellesdon and Earlham.**

To support the Western Arc service we would also improve facilities at bus stops on the A1067 and along the route of the proposed 'Western Arc' bus route. This could include raised kerbs, new or improved shelters and electronic displays.

Potential new bus route options

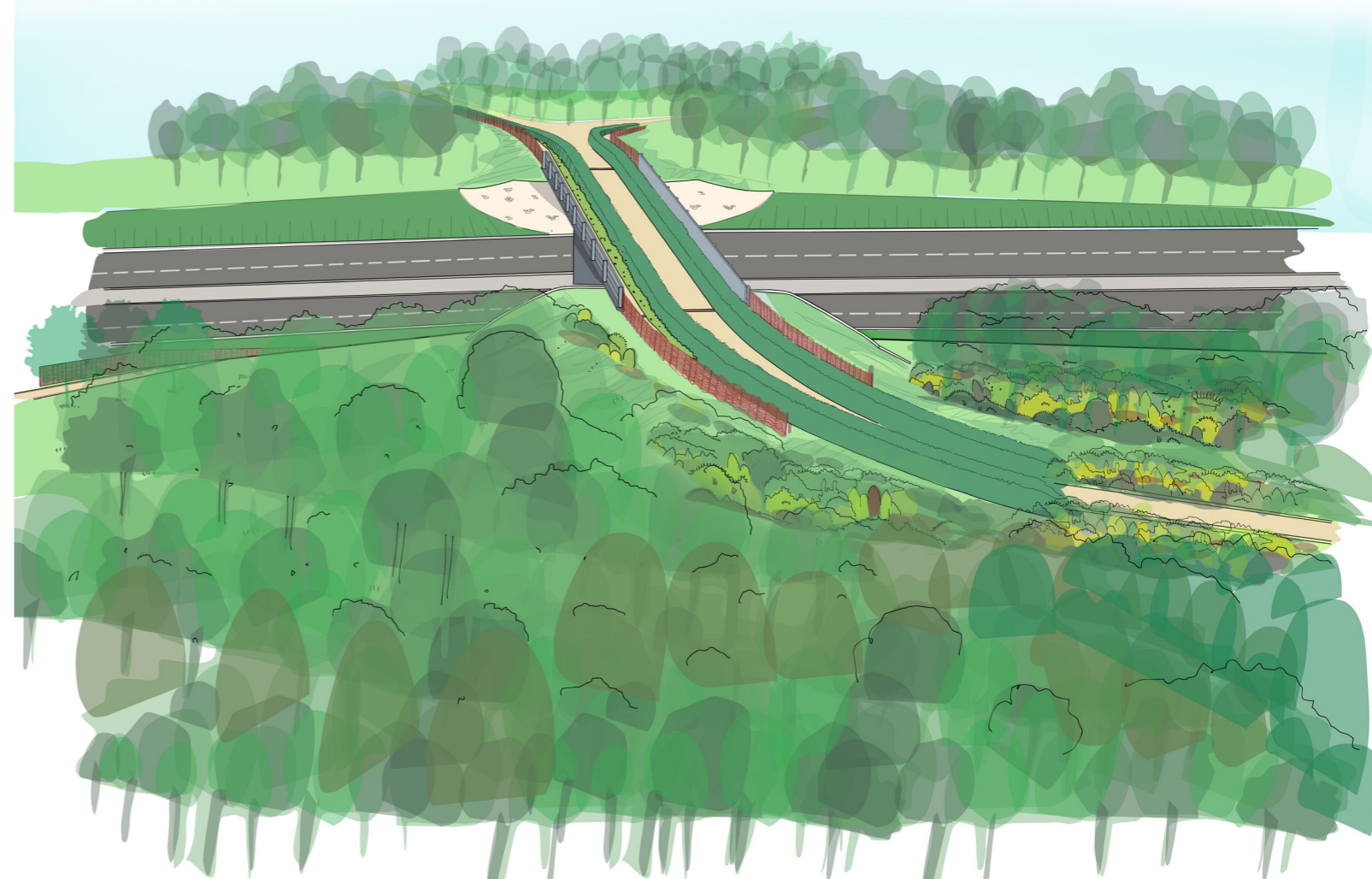


Protecting the environment

We are committed to building the Norwich Western Link in an environmentally responsible way. We are continuing to carry out ecological and environmental surveys in the area and taking advice from statutory environmental bodies to inform our work and ensure we can take up-to-date information into account in our planning application.

We want to limit any adverse environmental impacts the new road may have and seek opportunities to enhance the environment in the area. We're currently developing these proposals and more detailed information will be shared in our next public consultation. However, our aims include:

- » **Creating new habitats and improving existing ones** in the local area to support a wide range of wildlife. We are likely to focus on creating and improving significant areas of woodland and wetland habitat.
- » **Maintaining connectivity for wildlife** in the area by creating structures across the road designed to help species cross safely. Our current proposals include two green bridges and two underpasses designed for use by wildlife, and these would be complemented by planting. The proposed location of these structures is shown on the Norwich Western Link Route Map in these consultation materials.
- » **Not affecting the integrity of the River Wensum which is designated as a Special Area of Conservation**, which can be achieved through the design of the viaduct on which the Norwich Western Link would cross the river and its flood plain, as well as through the construction methods used.
- » **Minimising other environmental impacts** such as noise and visual impact through, for example, landscaping, planting and screening. In addition, we would compensate for any areas of floodplain affected, meaning there would be no increased risk of flooding as a result of the project.



Artist's impression of the green bridge towards the southern end of the Norwich Western Link route (looking west)

Find out more

The consultation runs from **Monday 27 July to midnight on Sunday 20 September 2020.**

We would encourage everyone to look through all the information available as part of the consultation before making their response. This information will be available to view via www.norfolk.gov.uk/nwl throughout the consultation period, where people can also respond by filling in the consultation questionnaire.

People who can't access the internet can request for paper copies of the consultation brochure and questionnaire to be posted to them – contact details for how to get in touch about this are below.

If you would like to request hard copies of the consultation brochure and consultation questionnaire...

Please email us at norwichwesternlink@norfolk.gov.uk or ring us on 0344 800 8020 and give us your postal address. We'll then put a copy of the brochure and consultation questionnaire in the post to you as soon as possible. The questionnaire can be returned to a freepost address (details below), meaning you won't need to put a stamp on your envelope.

If you would like to discuss the consultation proposals with staff involved in the project before responding to the consultation...

Staff will be available to discuss the consultation proposals via phone or internet calls during the consultation period. To book an appointment to discuss the proposals with members of the project team, please email norwichwesternlink@norfolk.gov.uk or ring us on 0344 800 8020 and we'll aim to arrange a time that is convenient for you. We will make weekday evening appointments available for people who have commitments during the day.

We would recommend people contact us as soon as possible after the consultation period has started to organise an appointment so that we can do our best to accommodate your request.

Have your say

There are several ways you can respond to the consultation. You can:

- » Complete the consultation questionnaire online via www.norfolk.gov.uk/nwl
- » Complete a paper copy of the consultation questionnaire and post it to: **Freepost Plus RTCL-XSTT-JZSK, Norfolk County Council, County Hall, Martineau Lane, Norwich, NR1 2DH**
- » Email comments to norwichwesternlink@norfolk.gov.uk
- » Write to: **Freepost Plus RTCL-XSTT-JZSK, Norfolk County Council, County Hall, Martineau Lane, Norwich, NR1 2DH**


The deadline for responses to this consultation is **midnight on Sunday 20 September 2020.**

If you need further assistance please email us on norwichwesternlink@norfolk.gov.uk or ring us on 0344 800 8020 and we'll do our best to assist you. However, please could all responses to the consultation be made in writing using one of the methods outlined above.



Norwich Western Link – Local Access Consultation

Respondents



438 people responded to the consultation. Almost three-quarters (316) of respondents said they were responding as ‘a local resident’; forty respondents said they were replying on behalf of a local business, local organisation or community organisation and provided the organisation name.


Summary of agreement/disagreement with all proposals (number of responses)

Proposal	Strongly agree/agree	Strongly disagree/disagree	Neither agree or disagree
Ringland (open)	157	164	65
Ringland (restricted)	162	142	77
Ringland PROW	223	67	90
Weston Road	188	96	95
Weston Road PROW	191	77	108
Breck Road	215	78	83
The Broadway	207	73	91
BB PROW	213	64	91

■ Strongly agree/agree
 ■ Strongly disagree/disagree
 ■ Neither agree or disagree

Overall, respondents agreed with all proposals except the option to keep Ringland Lane open to all traffic. For most proposals there was a large proportion of respondents who neither agreed or disagreed.

Walking, cycling and public transport measures



The measure most respondents said would **best support people to walk and/or cycle in the area to the west of Norwich** was option 4: Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham (145 people).

Option A (Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Taverham, Queen’s Hills, Longwater and Bowthorpe) was the preferred **Western Arc bus route** (119 people). Route B was chosen by 67 people but 162 people did not want either option.

Contents

Part	Subject	Proposals and commentary	Page
1	Respondent Information	<ul style="list-style-type: none"> · Respondent numbers · How we received the response · Responses by groups, organisations and businesses · Respondents' proximity to Norwich Western Link Route. 	3-6
2	Ringland Lane proposals	<p>How often do you usually travel on Ringland Lane? To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic? To what extent do you agree or disagree with the option to restrict Ringland Lane to walkers, cyclists and horse riders only at the point where the road crosses the Norwich Western Link (with landowner access for motorised vehicles as appropriate)? To what extent do you agree or disagree with our proposals for Public Rights of Way (PROW) in the Ringland Lane area?</p>	7-15
3	Weston Road proposals	<p>How often do you usually travel on Weston Road? To what extent do you agree or disagree with the proposal for Weston Road? To what extent do you agree or disagree with our proposals for Public Rights of Way in the Weston Road area?</p>	16-20
4	Breck Lane and The Broadway proposals	<p>How often do you usually travel on Breck Road? To what extent do you agree or disagree with the proposal for Breck Road? How often do you usually travel on The Broadway? To what extent do you agree or disagree with the proposal for The Broadway? To what extent do you agree or disagree with our proposals for Public Rights of Way in the area around Breck Road /The Broadway?</p>	21-26
5	Walking, cycling and public transport	<p>Please select up to three of the following measures that you think would best support people to walk and/or cycle in the area to the west of Norwich. Of the two options shown for a potential Western Arc bus service which, if any, would you be more likely to use?</p>	27-35
6	Cross-cutting themes	<p>Theme 1: Comments about the environment (climate change, risk of flooding, pollution and impact on wildlife) Theme 2: Comments about proposed roads/rationale for road building Theme 3: Comments about the cost of proposals Theme 4: Comments about Covid 19/other health issues</p>	36-39
7	Demographic Information	Gender, age, disability and ethnicity information	40
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9	Consultation feedback	Comments from all proposals about the consultation	43-44

Section 1: Respondent Information

Respondent Numbers

438 people responded to the consultation.

423 people answered the question 'Are you responding as ...? Please select all that apply'. The majority of people identified themselves as 'a local resident'.

Option	Total	Percent
A local resident	316	74.70
On behalf of a local business	20	4.73
On behalf of a local organisation	22	5.20
On behalf of a community organisation	8	1.89
Someone who works in the area	35	8.27
A visitor to the area	21	4.96
Someone who travels through the area	131	30.97
% does not total 100% as people could pick multiple options		

How we received the responses

All responses were received directly through Citizen Space (NCC's online consultation tool) apart from 36 by email and 35 by letter.

Responses by groups, organisations and businesses

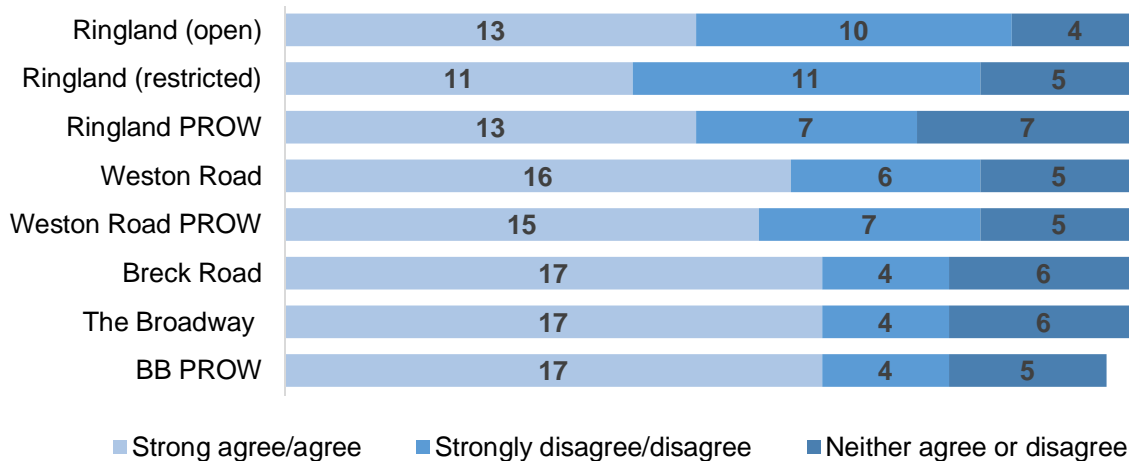
Thirty-three respondents answered the question: 'If you are responding on behalf of another organisation, what is the name of the organisation, group or business?'. However only thirty respondents provided a name (shown below).

- Arnolds Keys
- Ashill Parish Council
- Car-Free Norwich
- Costessey Town Council
- CPRE Norfolk (x2)
- District Councillor (Costessey)
- Easton Estate
- Elected member on the Norwich Western Link Local Liaison Group representing the Parish of Morton on the Hill.
- Green Infrastructure Officer (assess) Norfolk County Council

- Heaton Vences Chartered Accountants
- Honingham Parish Council
- Intu Chapelfield
- IR and JK Copplestone
- Kimberley and Carleton Forehoe Parish Council
- Kixx Norwich Ltd
- National Grid Gas plc
- Norfolk Chambers of Commerce
- Norfolk Labour Group and Clive Lewis MP
- Norfolk Local Access Forum
- Norfolk Sheet Lead Ltd / Zink It Ltd
- North Norfolk District Council
- Norwich Airport Ltd
- Norwich Cycling Campaign
- Permaculture Gardening Norwich
- Ramblers' Association: Norfolk Area
- RM Rutterford
- Stop the Wensum Link
- Weston Longville Parish Council
- Woodland Owner [not named]

Overall, the response from local businesses, local organisations and community organisations reflected wider views.

Summary of responses from local businesses, local/community organisations



Responses from local business, local organisations and community organisations, in particular from councils, tended to be complex, extremely detailed and often included references to: individual features within a parish (such as a village hall), specific local problems (such as illegal encampments), requests or suggestions for re-routing, or previous or ongoing discussions. Wider issues which were noted by many respondents - such as potential effects on pedestrians and cyclists, risk of environmental damage, and road building programmes - were also recorded by local business, local organisations and community organisations.

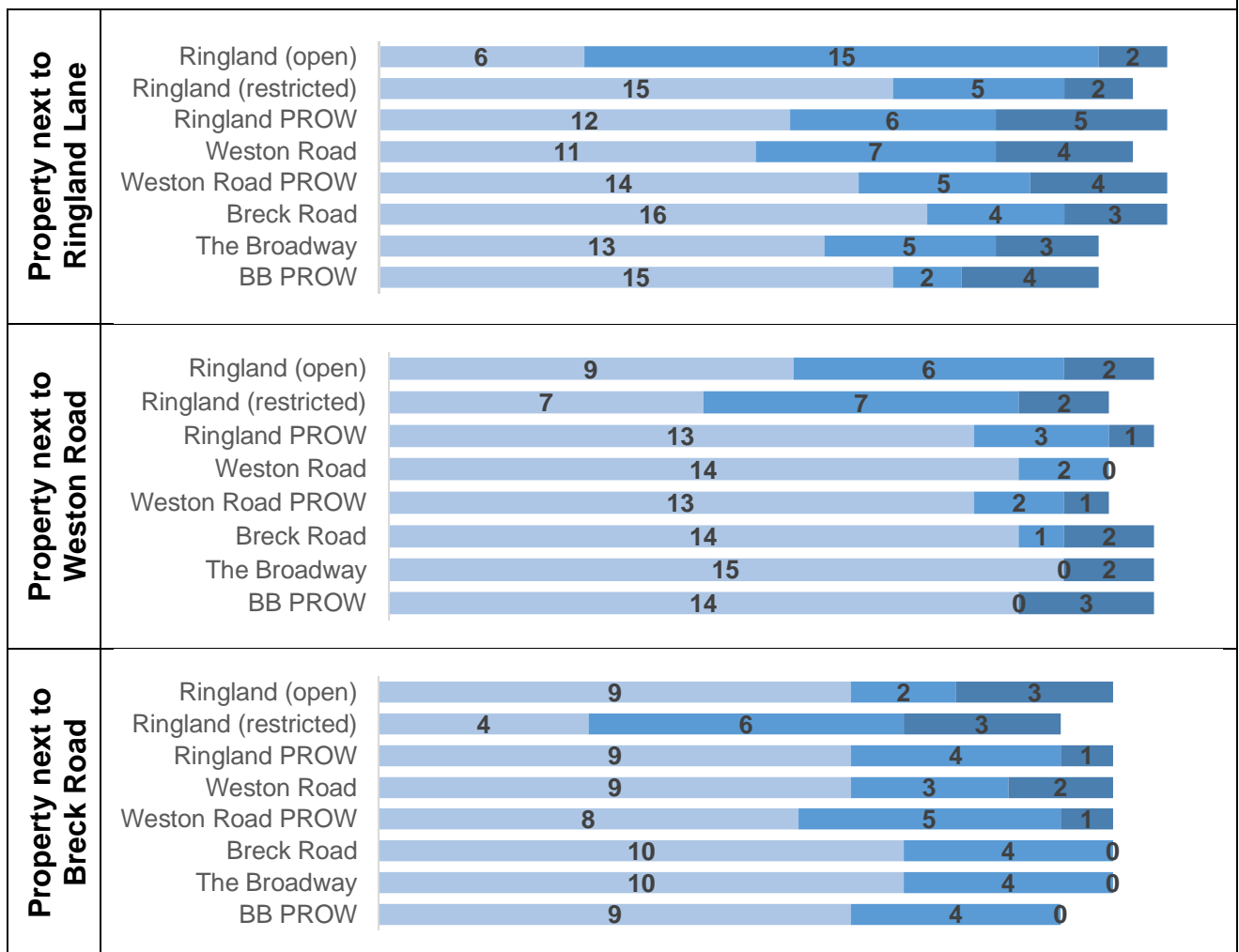
Respondents' proximity to Norwich Western Link Route

There were 47 responses to the question 'If you own a property that has direct access onto any of the roads that cross the Norwich Western Link route, please select which road/s your property is next to from the list below' (people could select more than one option). Ringland Lane was most frequently cited by respondents.

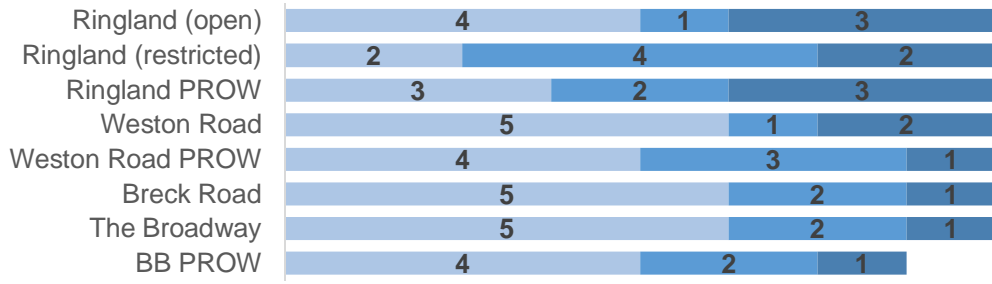
Option	Total	Percent
Ringland Lane	24	51.06
Weston Road (also known as Church Hill Lane)	17	36.17
Breck Road (also known as Breck Lane)	14	29.79
The Broadway	8	17.02
% does not total 100% as people could pick multiple options		

Summary of responses from residents with properties on Ringland Lane, Weston Road, Breck Road and The Broadway.

■ Strongly agree/agree
 ■ Strongly disagree/disagree
 ■ Neither agree or disagree



**Property next to
The Broadway**



Section 2: Ringland Lane

Summary of responses for each proposal relating to Ringland Lane (boldest indicates highest number).

Question	Strongly agree/ agree	Disagree/ strongly disagree	Neither agree or disagree
To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic?	157 (40.67%)	164 (42.48%)	65 (16.84%)
To what extent do you agree or disagree with the option to restrict Ringland Lane to walkers, cyclists and horse riders only at the point where the road crosses the Norwich Western Link (with landowner access for motorised vehicles as appropriate)?	162 (42.52%)	142 (37.27%)	77 (20.21%)
To what extent do you agree or disagree with our proposals for Public Rights of Way in the Ringland Lane area?	223 (58.69%)	67 (17.64%)	90 (23.68%)

How often do you usually travel on Ringland Lane?

There were 385 responses to this question. Just over a quarter of respondents (108) said they travel on Ringland Lane daily or weekly but this was fewer than respondents who said they travel on Ringland Lane infrequently (160).

Option	Total	Percent
Daily	34	8.83
Weekly	74	19.22
Monthly	89	23.12
Infrequently	160	41.56
Never	28	7.27
Totals	385	100.00

To what extent do you agree or disagree with the option to keep Ringland Lane open to all through traffic?

There were 386 responses to this question. Responses to this question were fairly evenly divided: 157 people strongly agreed/agreed and 164 people disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	95	24.61
Agree	62	16.06
Neither agree nor disagree	65	16.84
Disagree	71	18.39
Strongly disagree	93	24.09
Totals	386	100.00

Of the 157 people who **strongly agreed (95) or agreed (62)** with the proposal to keep Ringland Lane open to all through traffic, 73 people made additional comments. Using existing roads to avoid building new roads (and therefore reducing risk of environmental damage) was the main reason given by respondents for agreeing with the proposal.

Please note: all quotations used throughout this consultation report are printed as provided and a sample is shown which represents the range of comments within each theme/issue.

Theme/issue	Number of times mentioned	Quotation
Comments about keeping Ringland Lane open to all through traffic to reduce the need for new roads.	21	<p>All roads should remain open.</p> <p>Radial roads should be left open and reviewed ...</p> <p>The link road should not be built, and the roads should remain open as they are. Instead the £300M should be spent investing in public transport and active travel measures to improve capacity.</p> <p>The road should be kept open as the North West Link should not consist of any roadbuilding just the development of sustainable modes to protect the environment, promote Norfolk's economy in line with the county councils and governments CO2 targets.</p>
Comments about environmental impact	21	<p>As a local resident of Costessey with family living in both Ringland and Taverham our journey would be much longer and therefore bad for the environment [environment?].</p> <p>I consider the £300 million allocated to this road would be better spent on exploring alternative traffic solutions that do not cause serious environmental damage and to look to see how existing roads/paths/cycle lanes can be made safer and more public transport friendly.</p>
Comments about the effect on animals	17	<p>By using already existing infrastructure we will protect the area's wildlife and environment from the serious damage that it would suffer through the construction of the NWL.</p> <p>Closing Ringland Lane, along with several other proposals will ensure NCC is able to progress with the NWL, a scheme I wholeheartedly disagree with. ... This disdain shown towards the numerous wildlife habitats, species and ecosystems are clear to see, especially with the more recent saga around surveying for the barbastelle bats in and around the Ringland Woods. I have little or no confidence that NCC will make this scheme 'wildlife friendly', anything within the local press is saturated with 'biodiversity net gain' touted by those in post with little or no comprehension of how the 'net gain' hierarchy works.</p>
Comments about keeping Ringland Lane open for pedestrians.	14	<p>We would wish to see footways installed to improve pedestrian access and connectivity with the wider Public Rights of Way network. We would also wish to see strong traffic calming measures adopted to protect non motorised users of this route.</p> <p>All roads should remain open. The safety of people wishing to cycle or walk across the valley should be looked at.</p>
Comments about the effect on local people of closing Ringland Lane to all through traffic	14	<p>By keeping this open to all through traffic you will allow egress from and access to the A1067 by residents of Ringland.</p> <p>This is the best local link road between Weston & Ringland and should only be open for local traffic between the villages, not lorries or rat</p>

		running. Local residents shouldn't have to go miles round simply to travel the 2 mile distance
Comments about the impact on safety of closing Ringland Lane to all through traffic	14	In short if Ringland lane was also closed there would be a real risk to the village being cut off and inaccessible to emergency vehicles, deliveries and its residents. A rat run at the moment. Dangerous for walking.
Comments about keeping Ringland Lane open for cyclists	13	It would be better to keep this road open to through traffic with the aim of improving bus routes and other bike and pedestrian access. By all means create separate walking and cycle paths away from the road, but please keep it open to traffic.
Comments about project costs (saving money by keeping existing roads open).	13	The link road should not be built, and the roads should remain open as they are. Instead the £300M should spent investing in public transport and active travel measures to improve capacity. The existing road should remain open and be well maintained, possibly improved for all users, with priority for active travel and public transport options. Discarding the embodied carbon of the old and embodying more in a new road are not justified, and the money could be better spent.
Comments about keeping Ringland Lane open but improving public transport	12	All these radial roads should be kept open. Explore the options for Public transport to cross the valley directly (B1535) and give safe access for pedestrians and cyclists. The road should be kept open. The 300 million pounds spent on this road could be spent on a bus service and improved cycle routes on existing roads. This is a shocking waste of money set to damage one of norfolks beauty spots.
General comments about keeping Ringland Lane open	12	Keep it open, consider all users and you have offered flexibility and access to all. This should be kept open.
Comments about traffic flow, volume of traffic using Ringland Lane	11	Ringland Lane staying open will cause little change to the traffic numbers going Ringland. The road that really needs to be closed is Honingham Lane. Keep all roads open - move space for traffic - close it and the traffic has to go elsewhere.
Comments about the need to keep Ringland Lane open for access to adjacent villages	9	It is essential to keep Ringland Lane open to all through traffic to ensure vehicles can travel from Ringland to Weston Longville and vice versa by the most direct route. Need to maintain one local road link between the villages on either side of the NWL alignment
Comments including a proviso	5	But with a 20mph speed limit through Ringland village, and the closure of Honingham Lane to motorised traffic. Agree – BUT There should be a means to restrict the speed of traffic.

Of the 164 people who **strongly disagreed (93) or disagreed (71)** with the proposal to keep Ringland Lane open to all through traffic, 72 people made additional comments. The effect on cyclists and walkers and issues of safety were the main reasons respondents gave for disagreeing with the proposal.

Theme/issue	Number of times mentioned	Quotation
Comments about the effect of closing Ringland Lane on cyclists	26	<p>It would be safer for cyclists to close the road. However, this must be a permanent closure, unlike the road between Bowthorpe and Bawburgh, which was intended to be for cyclists only but then reopened while retaining a narrow and unpleasant underpass under the A47.</p> <p>I would be greatly in favour of shutting down Ringland Lane to through traffic - I believe this option would create an excellent cycle-friendly route towards Norwich, where none exists at the moment. Closing the road to through traffic would encourage cycle commuting.</p>
Comments about the effect of closing Ringland Lane for walkers	24	<p>This road is very dangerous when it is open to traffic, we have nearly been hit by cars when walking down this road.</p> <p>As a local resident and keen walker I would welcome closing the road to traffic, allowing it to be opened up safely for walkers, cyclists and riders to enjoy when the NWL is built. I regularly walk this road with my dog but very rarely drive along it. Closing it to traffic would provide a safe and pleasant route that connects with other footpaths and bridleways.</p> <p>This option would reduce traffic through Ringland Village. It is part of my regular walking habit, so this option of restricting the Lane to walkers, cyclists and horse riders would improve safety and the pleasure of using this road.</p>
Comments about the effect of closing Ringland Lane to all through traffic on safety issues	24	<p>Close it to traffic, it's too narrow & dangerous & having it open to traffic encourages rat running.</p> <p>Cars drive too fast down here & it's impossible to walk down here safely.</p> <p>Please close this road. Houses are situated directly onto this road or very close to the road. It is an incredibly dangerous road to pull out of properties onto.</p>
Comments about the effect of closing Ringland Lane on ratrunning	17	<p>We live on West End in Costessey and experience the effects of being on a rat run. We think it would be a mistake to allow motorised traffic along Ringland Lane.</p> <p>Closing this road will help reduce rat running on unsuitable road.</p> <p>Will continue to be used as a rat run if left open to cars.</p>
Comments about the environmental impact of closing Ringland Lane	16	<p>The county, indeed the country, needs to make car travel less acceptable and easy and protect our environment by building fewer roads (we already have more than we need) and by encouraging walking and cycling in a way that does not necessitate digging up natural habitat and green spaces.</p> <p>I strongly disagree with this proposal per se. No amount of ameliorating measures can make up for the massive environmental damage which will be the result of this plan.</p>
Comments about the impact of closing Ringland Lane on animals	15	<p>This will remove important wildlife habitat forever.</p> <p>With the additional impact on wildlife that the NWL will cause any reductions of traffic around it will be of significant benefit and support.</p>
Comments about traffic numbers/ flow or speed of	15	<p>Leaving Ringland Lane open to all traffic, when all the other roads are being closed, would result in all their current traffic diverting to Ringland Lane.</p>

vehicles using Ringland Lane		Traffic on this road has increased considerably in the last few years. This must not remain fully open to all modes of transport!!
Comments about the effect of closing Ringland Lane for horse riders (in conjunction with walkers/cyclists)	12	Cars will have alternative routes. This is not a high use road and leaving it open to walkers cyclists and horse riders would be a much better use and in keeping with the area. It would provide a safe place away from cars. Closing this road would enhance the pedestrian, equestrian and cycling uses of this area that the NWL is proposing.
Comments about road construction.	11	I disagree with the building of the Western Link road. I think the whole road should be put on hold for a few years, post Covid. The western link road must not be built. Scrap it now!!
Comments about the impact on local people	10	As a local resident and keen walker and cyclist I am very supportive of making the roads closed to traffic and opened up for walkers, cyclists and riders when the NWL is built.

Of the 65 people who **neither agreed or disagreed** with the proposal to keep Ringland Lane open to all through traffic, 22 made comments, 13 of which concerned the Western Link, or road construction more generally (“The western link does not need to be built, for many reasons, hence there is no need for any changes to Ringland Lane.” / “There is no need to change the current status of Ringland Lane at all, not for the sake of this unaffordable, outdated vanity project. The NWL is not needed.”) Fifty-two people did not choose an agree/disagree option and of these, ten made comments.

To what extent do you agree or disagree with the option to restrict Ringland Lane to walkers, cyclists and horse riders only at the point where the road crosses the Norwich Western Link (with landowner access for motorised vehicles as appropriate)?

There were 381 responses to this question. Slightly more people strongly agreed/agreed (162) than disagreed/strongly disagreed (142).

Option	Total	Percent
Strongly agree	102	26.77
Agree	60	15.75
Neither agree nor disagree	77	20.21
Disagree	52	13.65
Strongly disagree	90	23.62
Totals	381	100.00

Of the 162 people who **strongly agreed (102) or agreed (60)** with the proposal to restrict Ringland Lane to walkers, cyclists and horse riders only at the point where the road crosses the Norwich Western Link, 44 people made additional comments. Most responses reflected comments for the previous question regarding the impact of the proposal for walkers, cyclists and on issues of safety.

Theme/issue	Number of times mentioned	Quotation
Comments about walking in the area and benefits of the proposal for walkers.	19	This is an opportunity to calm the area for walkers and cyclists and one of the few green credentials the whole project could claim. This option would reduce traffic through Ringland Village. It is part of my regular walking habit, so this option of restricting the Lane to walkers, cyclists and horse riders would improve safety and the pleasure of using this road.
Comments about cycling in the area and benefits of the proposal for cyclists.	18	There's so little provision for cyclists around the City, and what there is, is an afterthought, so this would finally be a good statement of intent that you're serious about making it safe and encouraging exercise. With the Marriotts Way on our doorstep we have traffic free cycling for our family with two young children. A route which would allow us to visit other areas like Ringland would be hugely beneficial to local cyclists and families.
Comments about the impact of the proposal on issues of safety.	18	As I said above, it will encourage more people to exercise in this area as it will be much safer to do so. This road already forms part of a regular walking circuit used by myself and my wife and other local residents and dog walkers. I would like it to be quieter and safer than it is now as compensation for the noise and intrusion of the NWL we will suffer from when it is built.
Eight comments related to the impact on local people (there were also eight comments about noise and eight about traffic flow around Ringland Lane):		
<ul style="list-style-type: none"> · "This option would considerably improve the quality of life for residents living on Ringland lane and the village of Ringland." · "I think this is an excellent idea and would benefit the residents to the Western side of Ringland, and those to the east of Weston Longville." 		

Of the 142 people who **strongly disagreed (90) or disagreed (52)** with the proposal to restrict Ringland Lane to walkers, cyclists and horse riders only at the point where the road crosses the Norwich Western Link, 63 people made additional comments. Most responses concerned road construction projects, potential risk to the environment, and wider comments about walkers and cyclists.

Theme/issue	Number of times mentioned	Quotation
Comments about road construction	13	The link road should not be built, it is a scandalous waste of money, and flies in the face of the climate crisis and all the warnings that we are failing to address it. Scrap this project please..
Comments about the impact of roads on the environment	13	The Norwich Western Link is not needed and will contribute to harmful emissions leading to more problems from climate change. This road will cause unforgivable damage to a beautiful and special ecosystem.
Comments about cycling in the area	13	The close proximity of a four-lane carriageway to pedestrian and cycle traffic also raises issues health issues due to pollution. I also consider the £153 to 300 million allocated to this road would be better spent on exploring alternative traffic solutions that do not cause

		serious environmental damage and to look to see how existing roads/paths/cycle lanes can be made safer and more public transport friendly.
Comments about walking in the area	12	Traffic needs to use the new bypass. Additionally with all current considerations all these roads should be made available for non motorised transport (walking, cycling etc) to encourage green and healthy transport links. Walking and cycle paths should be created away from roads.
Comments about safety	9	Agree with pedestrians and cyclists but horses will pose a real safety problem with vehicles at speed. Congestion effects elsewhere would be worse. It would be more dangerous elsewhere.
Eight comments related to the impact on local people (there were also eight comments about wildlife):		
<ul style="list-style-type: none"> · “Strongly disagree. Motorised access is needed for local people, and restrictions should be on that basis.” · “I don’t understand why anyone who lives in the area would want it closed to traffic.” 		

Of the 77 people who **neither agreed or disagreed** with the proposal to keep Ringland Lane open to all through traffic, 28 made comments, 18 of which concerned the Western Link, or road construction more generally (“A suggestion: you could leave it as it is and not build the western link road and encourage people to use other forms of transport so there will be no need for a western link road.” / “Scrap the Western Link Road. Norfolk remains a comparative haven unlike much of the midlands which is criss-crossed with similar roads. You really don't have to emulate the mistakes of elsewhere.”) Fifty-seven people did not choose an agree/disagree option and of these, 17 made comments.

To what extent do you agree or disagree with our proposals for Public Rights of Way in the Ringland Lane area?

There were 380 responses to this question. More people strongly agreed/agreed (223) than strongly disagreed/disagreed (67).

Option	Total	Percent
Strongly agree	100	26.32
Agree	123	32.37
Neither agree nor disagree	90	23.68
Disagree	21	5.53
Strongly disagree	46	12.11
Totals	380	100.00

Of the 223 people who **strongly agreed (100) or agreed (123)** with the proposals for Public Rights of Way in the Ringland Lane area, 45 people made additional comments. The main reasons for agreeing were that Public Rights of Way encourage walking or cycling (people noted that horse riders would also benefit).

Theme/issue	Number of times mentioned	Quotation
Comments about walking and pedestrians	20	<p>More public rights of way is better in any location, circular routes and those that allow people to walk and cycle away from main roads and those which make active travel more convenient.</p> <p>Any efforts to improve access for walkers and cyclists would be very welcome.</p>
Comments about cycling and cyclists	16	<p>A shared footpath and cycle way will be a great improvement to the current state.</p> <p>Any efforts to improve access for walkers and cyclists would be very welcome.</p>
Comments including a proviso	6	<p>Anything to improve walking/cycling in the area is welcome. However, it will be important to adequately protect users from harmful effects and visual impact of the proximity of cars travelling at speed along the new link road.</p> <p>Agree but only if an INDEPENDENT environmental assessment considers this to be of no impact to existing environment and species.</p>

Of the 67 people who **strongly disagreed (46) or disagreed (21)** with the proposals for Public Rights of Way in the Ringland Lane area, 45 people made additional comments. The effect on wildlife and the environment and the impact on cyclists and walkers were the main reasons respondents gave for disagreeing with the proposal, but pollution (including noise pollution and the effect of pollution on health) was also mentioned.

Theme/issue	Number of times mentioned	Quotation
Comments about the impact of the proposal on wildlife	19	<p>The proposed underpass at Ringland Lane will not provide connectivity for wildlife. The construction of the NWL will cause fragmentation. The development will reduce the total amount of habitat, squeezing remaining wildlife into smaller and more isolated patches, the high-speed traffic of the road will also eliminate more and more of the remaining populations.</p> <p>Isolated pockets of habitat are not a viable alternative to an old established one. Animal territories do not conform to human boundaries. The underpass and green bridge are token offerings and similar measures in other schemes have proved ineffective..</p>
Comments about the impact of the proposal on the environment	18	<p>The whole of the WLR should be rethought. It has become increasingly clear that the council has no regard for the environmental impact of this scheme, and has repeatedly refused to take note of the ecological damage it will cause.</p> <p>NCC should avoid adding new structures where a path already exists. The aim should be leave as much of the environment as possible untouched.</p>
Comments about walking and pedestrians	17	<p>Footpaths running alongside a major road are inherently unpleasant for walking.</p> <p>All existing footpaths and roads should be kept. If there is insufficient money to so then a different route for the NWL should be found.</p>

Comments about cycling and cyclists	16	<p>I disagree with roads being blocked off for cyclists. Cycle routes in and out of Norwich have been badly affected by the Southern Bypass and especially the NDR. The NDR now makes it difficult to enter/leave Norwich along its route. This must not be repeated if a Western Link is built.</p> <p>All existing rights of way should be kept open for walking and cycling.</p>
Comments about general/wider disagreement	14	<p>I believe the demand for this is low, although I do concede that they are restrictive to the public in their current form.</p> <p>The closure of Church Hill Lane to pedestrians and cyclists, and adding long unpleasant diversions is not consistent with government ambitions to provide more walking and cycling routes to encourage healthy lifestyles.</p> <p>The proposals go against government guidance and NCC's own environmental policies. It is not good enough and the whole project needs to be rethought.</p>
Comments about pollution	11	<p>The close proximity of a four-lane carriageway to pedestrian and cycle traffic also raises issues health issues due to pollution. While traffic has dropped, and with it nitrogen dioxide levels, there are widespread concerns over a rise in speeding endangering those walking and cycling. Evidence suggests air pollution, including from exhaust fumes, significantly harms the survival chances of those with Covid-19.</p> <p>Pollution will also impact on the local environment. Pollution from roads begins with construction. An immediate impact is noise from construction equipment, and noise remains a problem along roads with traffic.</p>
Comments about noise	9	<p>Pollution from roads begins with construction. An immediate impact is noise from construction equipment, and noise remains a problem along roads with traffic.</p> <p>Absolutely no point in having a bridleway and footpath alongside a major road that will generate huge amounts of traffic. The road will already have destroyed the peace and tranquility that has been a huge part of my life for 35 years</p>
Comments about health	9	<p>Having a 4 lane road near to footpaths and cycle ways will not be conducive to human health. The council may want to consider what the monitoring statistics are likely to be along the pedestrian routes. Will the road be another area of the country where air quality laws are broken daily?</p>

Of the 90 people who **neither agreed or disagreed** with the proposals for Public Rights of Way in the Ringland Lane area, 28 made comments, 12 of which concerned cyclists (“Can the footpath link from Ringland lane to Fakenham road be upgraded to cyclepath? Otherwise there seems little point in extending the cyclepath on the Fakenham Road. Surely right now we should be building in as many cycling route options as possible if we are to encourage greater cycle usage.” / “There needs to be cycle paths along the whole route, separated from the new road, with cycles prohibited from using the vehicle carriage ways. This works well in many European countries, reduces accidents and maintains average speeds/reduces pollution for vehicles.” Eleven (mainly negative) comments concerned road construction more generally. Fifty-eight people did not choose any agree/disagree option and of these, 18 made comments.

Section 3: Weston Road

Summary of responses for each proposal relating to Weston Road (boldest indicates highest number).

Question	Strongly agree/ agree	Disagree/ strongly disagree	Neither agree or disagree
To what extent do you agree or disagree with the proposal for Weston Road?	188 (49.60%)	96 (25.33%)	95 (25.07%)
To what extent do you agree or disagree with our proposals for Public Rights of Way in the Weston Road area?	191 (50.80%)	77 (20.48%)	108 (28.72%)

How often do you usually travel on Weston Road?

There were 379 responses to this question. Almost a fifth of respondents (75) said they travel on Weston Road daily or weekly but almost half (182) said they travel on Weston Road infrequently.

Option	Total	Percent
Daily	24	6.33
Weekly	51	13.46
Monthly	58	15.30
Infrequently	182	48.02
Never	64	16.89
Totals	379	100.00

To what extent do you agree or disagree with the proposal for Weston Road?

There were 379 responses to this question. Almost half of respondents (188) strongly agreed/agreed and just over a quarter (96) disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	83	21.90
Agree	105	27.70
Neither agree nor disagree	95	25.07
Disagree	25	6.06
Strongly disagree	71	18.73
Totals	379	100.00

Of the 188 people who **strongly agreed (83) or agreed (105)** with the proposal for Weston Road, 42 people made additional comments. The positive impact of the proposal for cyclists and walkers was the main reason for agreement.

Theme/issue	Number of times mentioned	Quotation
Comments about the impact on cyclists	11	<p>Again this will help reduce traffic and for riding/walking/cycling as other routes are being lost plus it will be much safer for horse riding.</p> <p>We live on Weston Green Road at the junction between Paddy's Lane and Honningham Road and the proposals would maintain our walking and cycling links but still maintain existing vehicle access to the A47, Lenwade and the Fakenham Road which is essential for us.</p>
Comments about the impact for pedestrians	11	<p>It will be brilliant to remove motor vehicles from this stretch of road which is used by pedestrians for exercise and dog walking. The road is narrow and winding but motorists do not appreciate that walkers may be in the vicinity when they travel at 60 mph along this very stretch.</p> <p>Yes it's right to close Weston Road/Church Hill Lane to through traffic. To the west of the link road it should be a place where pedestrians, cyclists and equestrians can enjoy access without being on constant alert for motor vehicles which may be approaching them on this narrow lane.</p>
<p>There were 11 comments in which people agreed with the proposal but did not say why, or they agreed with a proviso, or said the road should remain the same.</p> <ul style="list-style-type: none"> • "As long as residents can get to and from home without lots of extra mileage." • "[Organisation] strongly agrees that Weston Road be closed to through motorised traffic. However, [organisation's] mitigation strategy proposed that there should be access for non-motorised traffic (walkers, riders, cyclists) via a ramped bridge or an underpass. Weston Road is already popular with walkers, cyclists and riders creating a much valued natural circular route from Ringland to Weston. Closing the road completely would cut off access for this existing group of users. Keeping Weston Road/Church Hill Lane open for non-motorised traffic would significantly reduce the need for the creation of new restricted byways." • "Close Weston Road to motorised traffic." 		

Of the 96 people who **strongly disagreed (71) or disagreed (25)** with the proposal for Weston Road, 66 people made additional comments. Most comments related to the negative effect of road construction, potential detrimental impact on cyclists and walkers and on wildlife and the environment, broader issues connected with the overall approach and costs.

Theme/issue	Number of times mentioned	Quotation
Comments about road construction	22	<p>By all means add in cycle / walking paths but as I disagree with the link road being built due to it impact on local biodiversity and air quality I am forced to say that i disagree with this proposal.</p> <p>The radial roads should be left open and public transport investment increased significantly to give existing towns and villages viable public transport alternatives to the private car.</p>

Comments about the impact on cyclists	21	The proposal will prevent use of the road by cyclists. Despite low usage, this is a valuable route for cycling. Would it be possible to keep access for pedestrians/cyclists only?
Comments about the impact on pedestrians	20	I could not encourage a proposal that reduces pedestrian access. Strongly disagree. Weston Road is needed to provide direct connection from Weston Green to Ringland, certainly for walkers and cyclists.
Comments about the impact on wildlife	14	Closing this to all road users, completely disconnecting rural communities and destroying local wildlife habitats is unacceptable. I use this route frequently to walk and cycle. It is a Roadside Nature Reserve. and the verge contains many species that are particular to this unusual sandy habitat. This is species rich aside grassland.
Comments about the impact on the environment	13	All existing routes should be retained to allow all users the option to take the most fuel and time efficient routes. Given the price of fuel and the push to reduce CO2 emissions it is the "Green" option. Besides this, they can always be closed off at anytime in the future. I think this road should be kept open and have its function improved in such a way that the NWL doesn't need to be built. ... By using already existing infrastructure we will protect the area's wildlife and environment from the serious damage that it would suffer through the construction of the NWL.
Comments about this proposal in the context of the wider consultation	10	Before any final decision is made there should be a review or pause of the NWL project to see exactly how the A47 adjustments, the long term impact of the NDR and the consequences of Covid affect traffic numbers and flows. Disagree with this proposal. I'd rather see a county wide approach to encourage the use of public transport and cycling, and schemes that encourage people to drive less.
Comments about cost	10	The 300 million pounds allocated for this road extension would be better spent on public transport with expanded cycling and walking infrastructure, The £300 million to be spent on the NWL is an appalling waste of money. We are all crying out for better alternatives that include proper public transport systems. Radial roads need to be kept open and traffic calming measures instituted.

Of the 95 people who **neither agreed or disagreed** with the proposal for Weston Road, 21 made additional comments which tended to reflect comments made by people who strongly disagreed or disagreed (ten about wider road construction project, seven about environmental impacts, and six about finance). Fifty-nine people did not choose any agree/disagree option and of these, 13 made comments.

To what extent do you agree or disagree with our proposals for Public Rights of Way in the Weston Road area?

There were 376 responses to this question. Just over half of respondents (191) strongly agreed/agreed and just over a fifth (77) disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	86	22.97
Agree	105	27.93
Neither agree nor disagree	108	28.72
Disagree	22	5.85
Strongly disagree	55	14.63
Totals	376	100.00

Of the 191 people who **strongly agreed (86) or agreed (105)** with the proposal for Public Rights of Way in the Weston Road area, 27 people made additional comments. Most comments related to benefits for cyclists and walkers.

Theme/issue	Number of times mentioned	Quotation
Comments about the impact on pedestrians	14	<p>We should have access to Weston Longville on foot or horse or bike, eg pedestrian access over or under the new road.</p> <p>There should be through access to pedestrians, horses, so that they can continue a journey through to Weston Longville. Eg a pedestrian type bridge, walkway</p>
Comments about the impact on cyclists	12	<p>I am very happy with the proposals. They maintain our walking routes and will eliminate all traffic. I am fully supportive of making traffic free cycling routes.</p> <p>However you do need to put in a safe cycling route to access Taverham.</p>
Comments including a proviso	7	<p>If the Norwich Western Link as envisaged is inevitable then the suggested changes appear to be sensible - although walking/riding in close proximity to a busy dual carriageway is clearly less likely to be enjoyable than on the current pathways; in giving a positive response to this question I assume that 'natural' barriers will be created between the new road and the new/changed pathways to reduce noise and exhaust pollution and to hide the road as much as possible.</p> <p>If the new Bridleway is constructed to an adequate standard then this is a suitable solution for cyclists - PROVIDED it has a reasonable surface that road bikes (EG not just mountain bikes) can use. Ideally it would have a tarmac or other firm, non loose surface</p>

Of the 77 people who **strongly disagreed (55) or disagreed (22)** with the proposal for Public Rights of Way in the Weston Road area, 42 people made additional comments. Most comments related to environmental concerns and climate change, negative effects of road construction, and the impact on cyclists, walkers and wildlife.

Theme/issue	Number of times mentioned	Quotation
Comments about environmental impact	14	<p>I don't agree with anything about the Great Western Link for its destruction of natural habitat, pollution and degrading of the environment to bring runaway climate change ever closer.</p>

		[NCC needs to show ...] environmental leadership: deliver on CO2 emissions, air quality and biodiversity.
Comments about the impact on cyclists	13	<p>Changing Weston Longville Footpath 9 to a restricted byway to accommodate cyclists is not necessary. There will be sufficient access via minor roads especially if a crossing is provided on Weston Road. Please leave as much of the existing environment as possible intact and don't urbanise it.</p> <p>Routes running alongside the NWL will be unpleasant and put people off walking and cycling.</p>
Comments about road construction and road usage	13	<p>Public rights of way should be preserved and protected. This road is taking us in the opposite direction to what is needed.</p> <p>Put the money into public transport not roads.</p>
Comments about impact on wildlife	11	<p>These [PROW] are old historic routes many are important wildlife corridors which will be irreparably damaged by road proposal. There cannot be biodiversity net gain when a green corridor is severed.</p> <p>Norfolk has a number of important wildlife environments which need to be enhanced rather than put under pressure from road building. With stark warnings from international and local wildlife organisations such as Norfolk Wildlife Trust on the threat to biodiversity - look at County Council priority should be to protect and enhance biodiversity in the County.</p>
Comments about the impact on pedestrians	11	<p>A long diversion is not going to encourage walking and cycling, neither is diverting to a road used by motorised vehicles.</p> <p>Strongly disagree. There is little justification for making Weston L footpath no 9 into a restricted by-way, which would allow carriages. It is fine now as a footpath. Good to have a bridleway on W side of NWL.</p>
Comments about the impact on climate change	10	<p>Norfolk faces an existential threat from storm surges and sea level rise as a result of global warming. The Council has a duty to future generations of Norfolk citizens to minimise the consequences of global warming. To this end the council should be focusing on reducing carbon dioxide emissions and supporting communities already under threat.</p> <p>The planet is in a state of climate emergency and we HAVE to stop building roads over our precious landscapes.</p>

Of the 108 people who **neither agreed or disagreed** with the proposal for Public Rights of Way in the Weston Road area, 31 made additional comments which tended to reflect comments made by people who strongly disagreed or disagreed. There were 15 comments about road construction: (“There is no need to change the current status of PROWs in the Weston Road area at all, not for the sake of this unaffordable, outdated vanity project. The NWL is not needed.” / “I think that the most responsible way forward is to review the currently existing radial roads in this area, and use the NWL budget to improve these sufficiently. These roads need to be, and can be, redesigned.”). Nine people expressed concern about environmental issues, eight commented on climate change and eight commented on wildlife. Sixty-four people did not choose any agree/disagree option and of these, 19 made comments.

Section 4: Breck Road and The Broadway

Summary of responses for each proposal relating to Breck Road and The Broadway (boldest indicates highest number).

Question	Strongly agree/ agree	Disagree/ strongly disagree	Neither agree or disagree
To what extent do you agree or disagree with the proposal for Breck Road?	215 (57.18%)	78 (20.75%)	83 (22.07%)
To what extent do you agree or disagree with the proposal for The Broadway?	207 (55.79%)	73 (19.87%)	91 (24.53)
To what extent do you agree or disagree with our proposals for Public Rights of Way in the area around Breck Road /The Broadway?	213 (57.88%)	64 (17.39%)	91 (24.73%)

How often do you usually travel on Breck Road?

There were 377 responses to this question. Just over two-thirds of respondents (260) never travel on Breck Road or use it infrequently. Under a fifth of respondents (66) travel on Breck Road daily or weekly.

Option	Total	Percent
Daily	21	5.57
Weekly	45	11.94
Monthly	51	13.53
Infrequently	177	46.95
Never	83	22.02
Totals	377	100.00

To what extent do you agree or disagree with the proposal for Breck Road?

There were 376 responses to this question. Over half of respondents (215) strongly agreed/agreed and just over a fifth (78) disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	86	22.87
Agree	129	34.31
Neither agree nor disagree	83	22.07
Disagree	13	3.46
Strongly disagree	65	17.29
Totals	376	100.00

Of the 215 people who **strongly agreed (86) or agreed (129)** with the proposal for Breck Road, 33 people made additional comments. Most comments related to benefits for cyclists and walkers.

Theme/issue	Number of times mentioned	Quotation
Comments about the impact on cyclists	10	<p>The cycle path must be tarmac to join with existing roads or cycle paths otherwise people won't use it. I cycle 150 miles a week and we don't need cycle paths everywhere, just getting in/out of the urban area and to connect with quiet roads. They also need to be properly laid flat. The paths on the NDR are shockingly bad for a new road and generally more dangerous to ride than the road. Small bumps seem like nothing at 8mph, but at 15 they are really dangerous. Do the infrastructure as planned here but attention has to be given to surfacing quality not just the route.</p> <p>Provided access remains for cyclists, and the surface is firm (preferably tarmac), it all sounds good to me!</p>
Comments about the impact on pedestrians	8	<p>It will open up an excellent walking and riding route and coupled with the proposed cycleway along side the NWL to Honingham make it a pleasant new route.</p> <p>Will remove passing traffic and maintain walking and cycling links – good.</p>
Agreement with a caveat (primarily that Ringland Lane stays open)	8	<p>I agree but only on the basis that Ringland Lane stays open. If Ringland Lane is closed to cars then Breck Road should stay open. In other words one of the 3 roads East / West should be open to local traffic.</p> <p>Subject to signage so the Breck Road east doesn't become a dead end for anti social behaviour or the turning area a nocturnal car parking zone.</p>
<p>Other comments (9) about partial access which did not appear frequently but which are relevant here include:</p> <ul style="list-style-type: none"> • “I agree it should be closed but no public right of way.” • “Close Breck Road to motorised traffic apart from access to properties, residences and agricultural land.” • “Close it but keep access for non-motorised traffic. Pedestrians, cyclists & horses.” 		

Of the 78 people who **strongly disagreed (65) or disagreed (13)** with the proposal for Breck Road, 45 people made additional comments. Most comments related to negative effects of road construction, environmental concerns, the impact on wildlife and cyclists, and climate change.

Theme/issue	Number of times mentioned	Quotation
Comments about road construction	18	<p>The WL road itself should not be built and instead, investment in better connections and routes for public transport and other personal transport should be made instead.</p> <p>I like the idea of green bridges over existing roads please build some over the NDR but please don't build the NWL.</p>

		Just abandon this plan altogether. There are other more sustainable options.
Comments about environmental impact	17	The 'green bridge' is a nice idea but it is not enough. The NWL will destroy the local landscape, protected wildlife sites, over 4 hectares of mature woodland and negatively impact the Wensum river and its valley if it goes ahead as planned. This green bridge is not good enough to mitigate these negative effects, nor of those on local communities. NCC should be looking at improving the current infrastructure as opposed to destroying the local environment.
Comments about the impact on wildlife	12	The construction of the road is likely to have an adverse effect on bat populations and wildlife. I highly doubt the connectivity argument. I believe that this scheme will displace wildlife, disturb birds and bats. Norfolk has a number of important wildlife environments which need to be enhanced rather than put under pressure from road building
Comments about cyclists and cycling	9	No evidence that the design would actually be fit for cyclists (especially based on experience of NDR). Need a proper tarmac surface of sufficient width. I feel the route should be left open for cyclists as a family of course with two young children we crave safe cycling routes and unfortunately the current proposals would leave us with a one way there and back route, allowing some other roads in the area to stay open to allow for circular routes would be good for cyclists, walkers and local businesses.
Comments about climate change	9	The planet is in a state of climate emergency and we HAVE to stop building roads over our precious landscapes.
<p>Other comments which did not appear frequently but which are relevant here related to the broader rationale behind the project (8), potential of increased pollution and the impact of such pollution (8) and the need for a joined up approach to transport links and plans throughout the county, including road building projects (7) to ensure a coherent county-wide plan (7):</p> <ul style="list-style-type: none"> • “Seems a white elephant to make it non motor users and I’m not convinced on how well used this would be by those you are trying to attract / cater for.” • “I support the establishment of new public rights of way and cycle lanes, but as explained above these need to be incorporated as part of a major review of the existing network of radial roads. There is a need to make sure traffic congestion is approached and considered in a greener and more integrated way.” • “Air pollution is now known to be a major public health crisis, bringing early death to over 60,000 Britons each year. Although the research is at an early stage, there is building evidence that air pollution is a significant and sensitive factor in people being more prone to COVID-19 infection and more serious COVID-19 illness and mortality. Footpaths and bridle paths should not be placed right next to a source of NO2 and PM2.5. The road should not be built in first place.” 		

Of the 83 people who **neither agreed or disagreed** with the proposal for Breck Road, 21 people made additional comments. There were 12 comments about road construction (“The road should be kept open as the North West Link should not consist of any roadbuilding just the development of sustainable modes to protect the environment, promote Norfolk's economy in line with the county councils and governments CO2 targets.”) and six people commented on environmental and climate change issues. Sixty-two people did not choose any agree/disagree option and of these, 14 made comments.

How often do you usually travel on The Broadway?

There were 370 responses to this question. Just over two-thirds of respondents (256) never travel on The Broadway or use it infrequently. Fewer respondents (53 or 14.32%) travel on The Broadway daily or weekly.

Option	Total	Percent
Daily	13	3.51
Weekly	40	10.81
Monthly	61	16.49
Infrequently	169	45.68
Never	87	23.51
Totals	370	100.00

To what extent do you agree or disagree with the proposal for The Broadway?

There were 371 responses to this question. Over half of respondents (207) strongly agreed/agreed and just under a fifth (73) disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	81	21.83
Agree	126	33.96
Neither agree nor disagree	91	24.53
Disagree	13	3.50
Strongly disagree	60	16.17
Totals	371	100.00

Of the 207 people who **strongly agreed (81) or agreed (126)** with the proposal for The Broadway, 27 people made additional comments. The main reason for agreement was the impact on wildlife.

Theme/issue	Number of times mentioned	Quotation
Comments about wildlife	9	<p>My 'strong agreement' with the proposal for the Broadway is conditional on the proposed green bridge properly fulfilling the functions described. I am slightly bemused by the idea that a green bridge facilitates crossing the new road by flying creatures such as bats but assume that is in keeping with the expert advice you have received.</p> <p>The above proposals seem sensible in the light of the low car usage, and the benefits to wildlife of the green bridge.</p>

Of the 73 people who **strongly disagreed (60) or disagreed (13)** with the proposal for The Broadway, 15 people made additional comments. Most comments related to negative effects of road construction, environmental concerns and the impact on wildlife.

Theme/issue	Number of times mentioned	Quotation
Comments about road construction	13	Sustainable transport please not expensive new roads. Roads cause pollution levels to rise. Covid-19 has higher death rate linked to pollution. Don't build the road.
Comments about environmental impact	13	Abandon this expensive environmentally disastrous plan altogether. I don't agree with anything about the Great Western Link for its destruction of natural habitat, pollution and degrading of the environment to bring runaway climate change ever closer.
Comments about wildlife	13	This scheme can not be comply with your promise of net biodiversity gain. The adjacent woodland is a known Babestelle bat roost. The adjacent woodland is ancient woodland, it can not be known quite how old it is but a Highway engineer can not reproduce this or make a richer habitat elsewhere that the bats will justly off to. During the construction period the wildlife will suffer terribly, there will be no habitat for it to move into. The green bridge will require a huge embankment, this will cover over important habitat. These bridge embankments are about 100m long and 30m wide. this will take out most of the road side trees along the Broadway. This 'green bridge' will not reduce the impact on bats. The evidence for thus is limited and the council is ignoring its Environmental obligations for thus protected species.

Of the 91 people who **neither agreed or disagreed** with the proposal for The Broadway, 22 people made additional comments. There were 12 comments about road construction: ("There is no need to change the current status of The Broadway at all, not for the sake of this unaffordable, outdated vanity project. The NWL is not needed."). Sixty-seven people did not choose any agree/disagree option and of these, 15 made comments.

To what extent do you agree or disagree with our proposals for Public Rights of Way in the area around Breck Road /The Broadway?

There were 368 responses to this question. Over half of respondents (213) strongly agreed/agreed and under a fifth (64) disagreed/strongly disagreed.

Option	Total	Percent
Strongly agree	79	21.47
Agree	134	36.41
Neither agree nor disagree	91	24.73
Disagree	10	2.72
Strongly disagree	54	14.67
Totals	368	100.00

Of the 213 people who **strongly agreed (79) or agreed (134)** with proposals for Public Rights of Way in the area around Breck Road/The Broadway, 25 people gave reasons or made additional comments, mainly about cycling in the area.

Theme/issue	Number of times mentioned	Quotation
Comments about cycling	8	I'm particularly glad to see that a new crossing for cyclists/pedestrians etc. is proposed for the new section of A47.

Of the 64 people who **strongly disagreed (54) or disagreed (10)** with proposals for Public Rights of Way in the area around Breck Road/The Broadway, 39 people gave reasons or made additional comments. Most comments related to the impact on the environment, wildlife and cyclists.

Theme/issue	Number of times mentioned	Quotation
Comments about the environment	12	The irreplaceable environmental damage, noise and air pollution the new road will bring is unjustifiable and none of the mitigations you propose to put in place will repair or replace the damage to species and woodlands which are under threat through the construction of this road. All these proposals are ridiculous. Expensive, disastrous environmentally
Comments about wildlife	11	The NWL will be even more unnecessary devastation, no doubt cause extinctions to species that are on the red list for conservation and protection. Bat colonies have left the route of the NDR, so therefore the attempted mitigation schemes did not work. These mistakes must not be made again, the existing habitats must not be destroyed.
Comments about cycling	10	The A47 underpass and then route parallel to the NWL will be unpleasant to ride, cutting off what is currently a pleasant loop available to the citizens of West Norwich for exercise. This runs counter to government calls for more exercise routes. The priority should be to make it easier for people to cycle and walk or use public transport.

Of the 91 people who **neither agreed or disagreed** with proposals for Public Rights of Way in the area around Breck Road/The Broadway there were 18 comments including eleven about road construction projects. Seventy people did not choose any agree/disagree option and of these, 20 made comments.

Section 5: Walking, Cycling and public transport measures

Please select up to three of the following measures that you think would best support people to walk and/or cycle in the area to the west of Norwich.

There were 318 responses to this question. The three measures respondents said would best support people to walk and/or cycle in the area to the west of Norwich are (in order of most frequently selected):

- Option 4: Create a cycle friendly on-road link from **Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham** (145)
- Option 3: Create a new pedestrian and cycle crossing on **Drayton High Road to improve connectivity with the Marriott's Way** (139)
- Option 7: Create a cycle-friendly on-road link south of A47 from **Mattishall to the Norfolk and Norwich University Hospital & University of East Anglia** (131).

It should be noted that Option 1: Create a new pedestrian and cycle crossing on the A1067 Fakenham Road at Attlebridge was selected 130 times which was almost as many times as the third most popular choice (option 7, 131 times).

Option	Total	Percent
1) Create a new pedestrian and cycle crossing on the A1067 Fakenham Road at Attlebridge	130	40.88
2) Create a new pedestrian crossing on the A1067 Fakenham Road to connect Ringland Footpath 1, south of the A1067, with Attlebridge Restricted Byway 4, north of the A1067	116	36.48
3) Create a new pedestrian and cycle crossing on Drayton High Road to improve connectivity with the Marriott's Way	139	43.71
4) Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham	145	45.60
5) Create a cycle friendly on-road link from Ringland to Easton	114	35.85
6) Create a cycle-friendly on-road link from Taverham to Dereham Road	119	37.42
7) Create a cycle-friendly on-road link south of A47 from Mattishall to the Norfolk and Norwich University Hospital & University of East Anglia	131	41.19
8) Improve cycle parking at, and access to, the Airport Park and Ride site	65	20.44
% does not total 100% as people could pick multiple options		

Of the two options shown for a potential Western Arc bus service which, if any, would you be more likely to use?

There were 348 response to this question. Option A was the preferred choice of just over a third of respondents (119) but just under half of respondents wanted neither option A or B (162).

Option	Total	Percent
Option A – Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Taverham, Queen’s Hills, Longwater and Bowthorpe	119	34.20
Option B – Thorpe Marriott to Norfolk and Norwich University Hospital and University of East Anglia via Drayton, Norwich Airport, Hellesdon and Earlham	67	19.25
Neither	162	46.55
Totals	348	100.00

Of the 119 people who picked **Option A** (just over a third of respondents), 61 people made additional comments. Most comments concerned the usefulness of the route, additional access it would provide to places currently poorly connected, and the impact on people who live in Queens Hill.

- The proposed route would be useful to respondent /offers new opportunities:** “This option gives me cycle access to the gym and shops I need to access at Longwater and enables onward travel to Norwich .” / “Covers Longwater which the other one doesn't.” / “It opens up new links.” / “This would provide a 'cross county' link across the area which would provide an effective link across the area - and perhaps encourage greater use of public transport in the area.” (16 comments)
- The proposed route would offer improved access to NNUH (and UEA):** “Option A - If you live anywhere across this region, there is no sensible Bus route to get you to the UEA/Hospital. Many car journeys could be avoided by having the option A bus route”. / “Very helpful to have good bus links to NNUH and UEA. Current services are useless and we do not use them.” / “I am in my 70s. If I become unable to drive, Option A would allow me to travel to the shopping area at Easton and to the hospital.” (13 comments)
- The proposed route would connect up (more) places currently poorly connected:** “It seems like this option would grant increased public transport to areas that are less connected to the city and in general.” / “This better serves the currently most poorly connected areas.” / “ Option A provides a route not provided now.” (12 comments)
- The proposed route would improve access for people in Queens Hills:** “Queens Hill is only has one bus option & this means having to travel into the city & then back out again to get anywhere. Therefore everyone has to rely on their

cars.” / “There is no public link to taverham from queens hills, a direct route from queens hills to taverham for residents needs to happen as many children on the estate attend taverham high school , and ideal for hospital journeys, open the existing not used bus lane, review access from queens hills to taverham and make this happen, queens hills is treated as lost world and needs some forward planning to improve logistics on and off the estate.” / “Queens hills desperately needs better roads due to the amount of traffic now using it and because the ambulance station needs to be able to respond quicker to emergencies.” (8 comments)

- **The proposed route would improve access to/from the respondent’s home:** “I live in Bowthorpe and so this route would pass very close to my home..” / “I’d be more likely to use this because it comes far closer to where I live, i.e. Ringland.” / “Closer to where I live.” (7 comments)

Of the 67 people who picked **Option B** (just under a fifth), 35 people made additional comments, most of which related to access to the airport and the usefulness of the proposed route.

- **The proposed route improves access to Norwich airport:** “There is a need to improve public transport access to the airport.” / “B Covers wider area and would link to Airport park & ride.” / “Connecting via the airport is important.” (11 comments)
- **The proposed route would be useful to respondent /offers new opportunities:** “Improved bus routes obviating the need to go into the city and out again.” / “It would connect places i am more likely to travel to/from and is more accessible for me.” (8 comments)

Of the 162 people who said they would **not choose neither Option A or B** (just under half of respondents), 92 people made additional comments. The main reason people said they would not pick either option was that the routes were not relevant to them, there were related public transport issues, wider concerns about road construction projects or issues with the routes.

- **Comments about the relevance of routes to the respondent:** “I have no need to travel in this area.” / “Too far away from where I live.” (30 comments)
- **Comments about other aspects of public transport which affect the proposal:** “I have not selected any option suggested by NCC as there is nothing that really comes across as an improvement?” / “No need as no public transport from my village to link to this, would have to access by car so may as well do the whole journey by car.” (18 comments)
- **Comments about roads:** “How about improving bus services without building an expensive road which we can never repay in two generations or more?” / “The funds for this outdated vanity project (the NWL) should be diverted

towards wider sustainable transport schemes in and around Norwich.” (17 comments)

- **Comments about the proposed route:** “Neither particularly serve Weston Longville well.” / “I would like to see bus routes that connect Norwich bus station with the Wensum Valley area. so that as a non car user I could get to these areas for recreation.” (15 comments)

Alternative suggestions for routes included:

- “Why not combine option A & B and start the journey for option A at the airport? Option A provides a route not provided now. Option B is partly provided by the Horsford Mulbarton service.”
- “Connect Queens Hill Estate to the North!!! Right now it is one way ghetto.”
- “The North/South public transport route proposals from Thorpe Marriott to the UEA/Hospital. The bus companies are not too keen on a complete loop proposal, but an alternative could be a return route for both sides of the loop - i.e. Thorpe Marriott to the UEA/Hospital and return and vice versa for the other side of the loop/ark; or alternatively, the bus companies could decide to develop/use only one half of the loop. The western ark/loop from Thorpe Marriott, via Taverham, queen's Hills, Longwater, and Bowthorpe seems to be the most beneficial route for costessey for this north/south public transport proposal.”
- “With the expansion of Easton a bus hub could be set up feeding from the villages to the Park and Ride site then on to all parts of the city and wider network. I live in Drayton. I would prefer Option A if there was a stop near me - can the route be extended to Drayton? A bus service from Drayton to UEA and the hospital would be absolutely marvellous but I suspect Option B would be a long trip.”

There were 196 additional comments. The issues most frequently commented on were: cyclists and pedestrians; road construction projects in general and the NDR/NWL specifically; traffic; and safety

Theme and number of times mentioned	Quotation
<p>Cycling (80) Safety of cyclists, cycling as a sustainable form of transport, need for safe cycle paths, NCC's role in promoting cycling, health benefits of cycling, cycling as an alternative to motorised transport</p>	<p>I feel that it would be beneficial to all classes of road user for cycle routes to be complete, well signposted, and sensibly routed for both the existing NDR and western link roads, in conjunction with local traffic orders prohibiting cycling on the main carriageways.</p> <p>There needs to be cycle routes that are safe and separate from traffic. These need to actually go somewhere useful as the ones on NDR don't seem to link up and are not much use.</p> <p>Proposed cycle routes will remain unattractive to new cyclists whilst they are still National Speed Limit routes with no segregation. Unless speed limits are lowered, or segregated lanes are built, these routes will have no purpose.</p>

	<p>Ensure any cycle routes are properly planned and maintained. Too many end in a ramp and dip that just fills with water, leaves and debris and becomes a dirty slippery puddle.</p> <p>The NDR was a missed opportunity to provide a family friendly cycle route around North of the City, it is often too difficult to follow for people who have never cycled before and fails to connect to many other safe cycling routes for families. With Sustrans about to declassify many of Norfolk's NCN routes and NCN Regional Routes as they fail to be safe for families it is imperative that you take this opportunity to involve Sustrans in achieving family friendly off road cycle routes.</p> <p>Just painting a cycle lane on the existing road roads is not a good option and it doesn't work. It is not safe and motorists often ignore it. In order to encourage more cyclists cycle lanes need to be separated from the traffic by a curb. Also cycle lanes need to not just stop at difficult junctions.</p> <p>The Government's stated target is to encourage more people to cycle and walk. If this target is to be realised, any major road building project should be closely scrutinised for its ability to contribute towards the cycling target.</p> <p>It should be a general principle that every new road construction should also seek to exploit opportunities to expand and improve the local cycling and walking pathways affected by the construction. The social and health benefits of good cycling and walking opportunities are well-evidenced.</p>
<p>Pedestrians (57) Safety of pedestrians, necessity of pedestrianised routes.</p>	<p>Though I broadly support the need to improve cycling and walking facilities this should not be conditional on the building of the NWL.</p> <p>There is a significant lack of public footpaths and bridleways being considered in the area to the south of the A47</p> <p>We must have a footpath directly from Ringland to Taverham.</p> <p>Making Taverham Lane safe by adding a pavement or safe footpath would be wonderful, similarly a cycle Lane would help. At the moment it is too scary to use. We tried once, never again.</p> <p>It is very important that a pedestrian / cycle access is provided from Weston Longville to Morton & Attlebridge & the crossing of the A1067 These three villages share the Hall for All.</p> <p>The existing permissive path which runs alongside Marl Hill from the A1067 to Church Street is inadequate and therefore unused and should be upgraded to provide easy pedestrian access from Morton and Attlebridge to the playing field, village hall, Church and Parson Woodforde pub and to bus services on the A1067.</p> <p>I am a resident of Attlebridge and strongly agree with a new crossing facility on the A1067 to help pedestrians cross safely and to access the playing field as there isn't one in Attlebridge. However, a big oversight is the village itself to access these pedestrian areas, the blind bend round the church as no footpath so extremely dangerous for pedestrians and needs to be addressed to ensure it is safe to access crossing.</p> <p>There should be adequate provision for a safe walking and cycling route which shadows the whole route of the Western Link Road.</p> <p>A safe pedestrian route from A1067 Lenwade to Dinosaur Park/Golf course. (Weston Longville have been pressing for this for years)</p>

	<p>There is a desperate need, greater in my opinion than any of these proposed, to provide a safe way for pedestrians to cross from the north to the south side of the roundabout where Broadland Northway interlinks with the Reepham Road. It is just crazy that well maintained and used footpaths on either side (Drayton Drewray on the north, link to Marriott's Way on the south) lead pedestrians straight to the roundabout where they have several lanes of traffic to cross.</p> <p>It's clear from the popularity of Marriott's Way that a riverside footpath route between Attlebridge and Drayton would be well used and a great local asset.</p>
<p>Road construction (53)</p>	<p>Please see comments in the Cross-cutting Themes section below</p>
<p>Traffic (53) Increased traffic as a result of proposals, traffic flow, speed of traffic, rerouting of traffic to detriment of other villages</p>	<p>I also object because the scheme would generate further traffic and result in development pressures and further entrench reliance on car and lorry use.</p> <p>Very concerned about the speed and level of traffic currently coming through west end and how this plan doesn't seem to effect that for the future.</p> <p>To consider the effect of increased traffic through villages south of the A47 ie the closing of Berry lane so that traffic does not cross from the A47 to Wymondham via Barnham Broom. The crossroad in Barnham Broom is already dangerous. If this is to be a through route traffic calming and speed limits must be put in place to deter traffic from using this route.</p> <p>Failure to close Honningham Lane to protect the centre of Ringland village from a massive increase in through traffic as a result of the A47 junctions.</p> <p>We are aware that proposals have been voiced to remove the HGV status from the B1535 other than for access only. We disagree with these suggestions as we feel it would be a retrograde step in managing traffic coming from the Fakenham side & potentially push traffic through the villages again. It would make better sense to put a roundabout ie at the junction of the B1535 and 1067 at Lenwade. Potentially slowing all traffic down and improving road safety. Access only – doesn't work - it is not able to be policed & generally increases the speed of traffic using the road illegally.</p> <p>Another road will just lead to more traffic.</p> <p>For those who are now subject to high levels of traffic using very minor roads between the NDR and the A47, the link is the only way they see for dealing with the situation.</p> <p>The Planners presume that Longwater Lane will have much reduced traffic, but the Catholic School on the junction with West End has a catchment area of about 25 miles, bringing in vehicles from far and wide. There may be more traffic that just the local traffic anticipated.</p> <p>West End and Longwater Lane are already pollution black spots. We do not need more traffic. The reason we will still get the traffic, is because a standard sat nav will the quickest and shortest route, which from Fir Covet Road to UEA/NUUH is through Old Costessey.</p> <p>Please also consider closing Honningham Lane. With the dualling of the A47, there is a real concern that cars will cut through Ringland to access Taverham and the city. The roads in the village are not wide enough to accommodate a significant increase in traffic.</p>
<p>Safety (52) Safety of cyclists and pedestrians, unsafe roads, perceptions of safety</p>	<p>... Highways England have advised the Council that it would not be safe to create a walking route which crosses the current A47 between Berrys Lane and the Mattishall Road roundabout yet this proposed cycle route appears to do just that before entering the proposed underpass under the new A47.</p>

	<p>When this link to the A47 is complete using whatever route agreed the existing stretches of the 'NDR' will see an increase in traffic especially at night. With this increase and the lack of lighting on and in the approach to the roundabouts I would expect the collisions currently regularly occurring on all roundabouts will increase with the risk of fatalities. It is for this reason I think the provision of lighting at all roundabouts should be considered in this build phase if this is to be prevented.</p> <p>The cycle route along the NDR is dangerous since the County chose not to provide safe crossings at roundabouts, nor safe cycle routes along radial roads leading to the NDR, in order to cut costs. Anyone cycling along the NDR takes their lives in their hands.</p> <p>Surveys have shown that a modal shift to sustainable forms of transport such as cycling and walking will take place only if it is safe, and seen to be safe. Safety is seen to be in the form of dedicated routes for cycling and walking, segregated from motorised traffic.</p> <p>Improve the existing PRoW, don't dangle the NWL as a way of getting people to opt for cycle routes and the provision to make them safer.</p> <p>Currently, it's far too risky to either walk or bike from Ringland along Ringland Road to Taverham to get a bus into Norwich. An dedicated cyclepath / pavement would allow this to happen</p> <p>There is a significant lack of public footpaths and bridleways being considered in the area to the south of the A47. This needs to be addressed to allow safe routes to be available should there be the significant increase in traffic that is expected.</p> <p>Need to further invest in safe cycle into Norwich from other routes, of particular interest to me is Wroxham into Norwich. The current road is very precarious.</p>
Environmental concerns (49)	Please see comments in the Cross-cutting Themes section below
Rationale for proposals (39)	Please see comments in the Cross-cutting Themes section below
Cost of proposals (38)	Please see comments in the Cross-cutting Themes section below
Public transport (34)	<p>I am in favour of better public transport systems that encourage cycling and use of public transport and reduce car ownership for those who can use carshare or public transport.</p> <p>A much greater emphasis should be put on providing low-carbon/zero-carbon public transport connections for villages in the Wensum valley that are currently unserved (e.g. Ringland, Weston Longville). People need an alternative transport option if they are to leave their car at home.</p> <p>Promotion of walking, cycling and accessible public transport should not piggybank an outdated vanity project like the NWL; these modes of transport should be backed because they are the sustainable future alternative. Giving people an alternative to their cars will reduce car use and remove the need for this latest road scheme (and others like it).</p> <p>We should be using the £300 million proposed for this link road to develop cycling and walking. And develop a green sustainable public transport system.</p> <p>Tram network should be considered.</p> <p>The orbital bus routes around Norwich are a welcome step towards giving the area a proper public transport network. However more consideration needs to be</p>

	<p>given to facilitating and encouraging use of public transport to the Norwich Science Park/UEA/NUH employment hub, including the adequate provision of park and ride services around the whole orbital bus route to and from this major employment hub, health service hub.</p> <p>We would like to see this scheme revised to include no road building but the construction of a "green link" between the Norwich Airport and the Norwich Norfolk University Hospital. This would allow buses to make speedy connections, walkers to access the countryside and cyclists to make meaningful journeys on separated carriageway. This would allow green modes to be prioritised over car movement and allow the generalised cost of travel of sustainable travel to be lowered to generate behavioural change.</p>
Wildlife (32)	Please see comments in the Cross-cutting Themes section below
Ratruns (28) Risk of diverting rat running to other places, risk of creating ratruns	<p>Anything which will divert rat runners from West End Costessey would be fantastic.</p> <p>With the new road coming onto the A47 directly opposite Berrys Lane, please can you tell me what provision is being made to prevent traffic using Berrys Lane as a rat run into Wymondham, cutting off a significant corner.</p> <p>Honingham Lane should be closed to motorised traffic to stop drivers travelling from Taverham/Hellesdon to the new Norwich Road junction by driving through the village of Ringland thus creating a rat run.</p> <p>This new road is just going to shift rat running to other areas including straight through barnham broom.</p> <p>You have not considered rat runs south of the A47. Cutting through some of these villages rather than using the Southern Bypass will cut a considerable distance off for people who want to connect with the A11, mainly at Wymondham.</p>
Covid 19 (28)	Please see comments in the Cross-cutting Themes section below
Pollution (25)	Please see comments in the Cross-cutting Themes section below
Wider transport policy (23) Proposals must be seen in wider context of countywide transport issues and plans	<p>The major failing of this consultation is that it does not take account of the proposals for the A47 dualling, and the consequential impact on the local road network - the two projects are closely connected.</p> <p>This consultation does not take into account the impact of the A47 Easton to North Tuddenham dualling project and the fact that the two projects will not be completed at the same time. In addition the local road connections related to the A47 project have been amended and are no longer as shown on the maps provided.</p> <p>With regard to road closures, all existing public rights of way should be protected and a review of radial roads carried out to explore options for new public transport routes.</p> <p>The Council should now step back, quash the decision of July 15th 2019. Working out the best sustainable transport options for this area requires a full and detailed review over the transport options over the Norwich western quadrant in the whole.</p> <p>Radial roads should be left open and reviewed to explore the opening of new bus and other public transport routes (e.g B1535 and through W Longville and Ringland (past Swan) to cross the valley directly as well as providing safer pedestrian and cyclist access as part of the Western Quadrant transport review proposed above.</p>
Routing (23) Detailed comments about particular	Please also consider closing Honingham Lane. With the dualling of the A47, there is a real concern that cars will cut through Ringland to access Taverham and the city.

<p>routes (particularly from Parish Councils), requests for changes to proposed routing</p>	<p>Would like Paddy's Lane to be closed to prevent traffic using Weston Longville as a cut through to the A1067.</p> <p>An alternative route for the section from the new A47 underpass to the old A47 in Honingham would be for it to run beside the hedge west of Heather Cottage. This would replace the unusable original lane/restricted byway to the West and enable the possible upgrading of it to a restricted byway as per the rest of the route. Any persons from outside the village wishing to start their journey from Honinhham could park in the redundant layby on the existing A47.</p> <p>Retain Honingham restricted byway no 1 from Mousewood Farm to A47, with suitable crossing of the NWL.</p>
<p>Climate change (19)</p>	<p>Please see comments in the Cross-cutting Themes section below</p>
<p>Effect on local people (16)</p>	<p>Most people who will use this road will be passing through, we will be living with it day in and day out, mourning the loss of our local habitat and vistas and bemoaning the drone of traffic - as they reach their journey's end a few minutes sooner, I doubt they will even give us a passing thought.</p> <p>Too much emphasis on cycle use - I and my wife are both in our 80's and how we can manage to shop and carry our bags on a bike is beyond me.</p> <p>As one of the few most impacted residents on the proposed route of the NWL I don't want it!</p> <p>We in Honingham are going to be cut off from our church as the new dualled A47 will go between the church and the village. We have asked for an underpass to get to the church but instead there is a circuitous route that is at least a mile out of our way and up and down a hill. Older folk who do not drive, but wish to visit the church to attend a service or tend a family grave, are going to be effectively cut off.</p> <p>We [Ringland residents] have to tolerate too many now for a small community. The only mention of Ringland in this online form is pretty talk about cycle routes - what about our daily lives and welfare?</p>
<p>Health issues (15)</p>	<p>Please see comments in the Cross-cutting Themes section below</p>
<p>Ideas</p>	<p>Ideas included:</p> <ul style="list-style-type: none"> · Time restriction to lower rush hour traffic (Ringland) · Speed restrictions for farm traffic (Ringland) · Visually separate cycle/footpath/bridlepath by different surfaces (Ringland) · Time road access restrictions to make walking safer (Ringland) · Pelican/Puffin crossings, wider footpaths, better street lighting/signage (Breck and Broadway PROW) · Reintroduction of trams (Western Arc) · Return of light railways (general comments) · Commission local artist to make underpass attractive (general comments) · Add trailers to buses so they can carry more bikes (general comments)

Section 6: Cross-cutting Themes

This section records four 'cross-cutting' themes (the environment, climate and wildlife; road construction; the cost of proposals; health issues including Covid-19) which emerged in responses to the consultation. It is important to note the high frequency of times these themes are mentioned because, even when they are not cited as a reason to agree or disagree with a proposal, they reflect respondents' values and concerns. The quotations shown are a sample only.

The cross-cutting theme mentioned most times by respondents (943 times) related to concerns about wildlife, climate change including flooding, environmental impacts and pollution. Second, in the 673 comments about roads, it was often unclear whether the respondent was referring to the Norwich Western Link road or a different programme (the NDR was frequently referenced). Many respondents who referred to an aspect of road construction said the NWL should not be built, regardless of the proposal's subject matter. Third, in the 204 comments about the cost of proposals, diverting money for road construction into greener projects was a recurring theme. Last, respondents queried whether plans devised in a pre-Covid-19 world were still relevant and also commented (163 comments) on possible links between Covid-19 and existing health issues.

Cross-cutting Theme 1: Comments about the environment including climate change and risk of flooding, pollution and impact on wildlife (943 comments)

The road will destroy local woodlands, ancient trees and wildlife habitat. It will further pollute the River Wensum and the surrounding land and air.

75% of people want a greener future post Covid - show true leadership and embrace the new now - don't wait until it's all late and there's no wildlife left.

The planet is in a state of climate emergency and we HAVE to stop building roads over our precious landscapes. The Building the Western Link road would be ecological vandalism. A site of SSI would be unacceptably ruined, mature and ancient trees would be lost, any saplings planted to replace them would take decades to grow to a size where they could possibly support the amount of biodiversity which is currently there, or offset the amount of carbon which the current trees do. By the time they mature it would be far too late for everything.

We face a climate breakdown unless we act much more robustly. While I appreciate that the council is far stronger than most that will be of little help if the governments own planned forecast of 4 degrees Celsius comes to pass.

I don't agree with anything about the Great Western Link for its destruction of natural habitat, pollution and degrading of the environment to bring runaway climate change ever closer.

Do not build this road - it is a crime against nature, stuck in 20th century thinking. All efforts must instead be focussed on dramatically reducing car ownership levels, as this is the only way to reduce CO2 emissions and air pollution.

The NWL will be even more unnecessary devastation, no doubt cause extinctions to species that are on the red list for conservation and protection.

This will remove important wildlife habitat forever.

This road will cut through a maternity roost of Barbastelle Bats and put at risk a wider "Super Colony". The Rare medium sized Barbastelle Bats is Red listed Barbastelle Bats foisted [?] only occasionally and for short periods. They like the very Best of environments that's why they chose the Wensum valley Norfolk so many of

them will die if they lose their precious Habitat the alternative accommodation being offered is not suitable and they refuse to be moved.

The Building the Western Link road would be ecological vandalism. A site of SSI would be unacceptably ruined, mature and ancient trees would be lost, any saplings planted to replace them would take decades to grow to a size where they could possibly support the amount of biodiversity which is currently there, or offset the amount of carbon which the current trees do. By the time they mature it would be far too late for everything. Bat colonies have left the route of the NDR, so therefore the attempted mitigation schemes did not work. These mistakes must not be made again, the existing habitats must not be destroyed.

This awful road is not necessary, if it is built it will devastate the local environment and wildlife. The Wensum is a rare Chalk stream and should be protected. We are living in a Climate and Ecological Emergency, this project would be insane.

This road cannot improve or protect the environment as you say. Just look at the barren landscape of the NDR. Dead saplings and grass. Plantings untended and strewn with litter, dead wildlife on the road.

The cost to our wonderful natural habitats is way too high. I expect my council to protect the environment not destroy it.

In 2020 I'm so so disappointed that as a council you cannot come up with something better than a four lane tarmac race track across a SSSI site.

West End and Longwater Lane are already pollution black spots. We do not need more traffic.

There is no mention in your questionnaire about the effects of air pollution caused by traffic (tyre particles particulates etc.

I object to the road because it will be extremely environmentally destructive in an area which is renowned for its internationally protected chalk stream species. Contrary to the usual specious claims of uninformed developers, no amount of "mitigation work" will compensate for the destruction of habitats and species-niches which have taken centuries to establish naturally.

The Western Link is an act of ecocide, and no amount of green-washing can change this.

Please do not destroy this Special Conservation Area, all the established woodland, sites of Special Scientific Interest and the health and wellbeing of countless humans and creatures.

There is nothing in the proposals that comes close to providing enough protection for wildlife from the destruction the road would cause. It would result in severe fragmentation of habitats, and a single underpass at Ringland Lane will not address this. There is also evidence that pollution from roads has a negative impact on wildlife in the area. The idea of biodiversity 'net gain' is totally laughable and the council should be honest about the relative importance it attaches to different aims and interests: in this proposal, cars and convenience for the few are clearly being prioritised above widely accessible transport options, health and wildlife.

Governments around the world, including our own, have announced a CLIMATE EMERGENCY. The Wensum Valley is as important as the rain forest. It would be hypocritical to condemn other countries for their carbon emissions and habitat destruction but go ahead with building the NWL and other roads.

By building the western link you will be contributing to the climate crisis. We have only 11 years to make a drastic change to the emissions we throw out into the atmosphere and the serious of this only requires drastic action to slow down climate change.

A link road would cause serious and lasting damage to a sensitive mosaic of habitats, landscapes and complex hydrology in and around the Wensum and Tud valleys. It would further increase in carbon emissions and air pollution. Transport's share of carbon in Norfolk is already shockingly high and has contributed to the rise in global emissions and to forest fires and rising sea levels.

Cross-cutting Theme 2: Comments about proposed roads and rationale for road building (674 comments)

All the credible research over the past many years has demonstrated that projects such as dualling & building of new roads bring considerable INCREASES to traffic in their wake, so your assertion that "motorised traffic on Ringland Lane would reduce" does not align with the available evidence.

A decision on which road to close and which road to keep open is not possible when there is no evidence available on how Covid has impacted on traffic numbers and flows. Nor is there any up to date origin and destination evidence.

Only a few people would see the benefits of their daily commute being shorter. Everyone will have to bear the economic and environmental costs.

Most of the proposals for enhancement of rights of way, safer crossings of the A1067, bus routes, cycleways etc, (which are beneficial) could be done now; the building of the Norwich Western Link would not make them easier or cheaper.

Truly supporting active travel and your obligations to the environment would mean accepting that this dual carriageway is a folly and should not be built.

The whole NWL proposal should be scrapped and local and through traffic road users should be made to use existing main roads such as A146, A11, A47 and A140.

Build the Western Link Road where it should have been in the first place.

Despite the high level of opposition, the road became reality, even (against our wishes) being extended as far as the A1067 Fakenham Road. This put it in close proximity to the A47, and by this very fact has led to increased rat running and a call from many for a link to be built. This would effectively make the NDR a northern bypass to Norwich, a purpose for which the road was not designed or built for.

Fix it first: focus on the roads we have rather than building new one.

The money set aside for the NWL would be better spent on such measures together with a review of the existing radial road network to see how traffic congestion can be addressed in a less environmentally destructive way.

Building an expensive new road for motor vehicles is simply the wrong thing to do in this day and age.

Mitigation is not a solution as you can see by the failed attempts on the NDR.

Unfortunately, the County Council's past actions have shown that the public cannot take at face value anything that the County Council says or proposes when it comes to road building. At the NDR examination, the County Council told the Panel that a Wensum Link was not needed. Yet towards the end of the examination, the County Council published a paper on options for a Wensum Link.

The money for the NWL would be better spent on such measures together with a review of the existing radial road network to see how traffic congestion can be addressed in a less environmentally destructive way.

Cross-cutting Theme 3: Comments about the cost of proposals (204 comments)

The huge financial cost cannot be justified at a time when local services continue to be cut and the full impact of the Covid-19 crisis has yet to be realised.

I also consider the £153 to 300 million allocated to this road would be better spent on exploring alternative traffic solutions that do not cause serious environmental damage and to look to see how existing roads/paths/cycle lanes can be made safer and more public transport friendly.

It is utterly incomprehensible to me that Norfolk County Council is considering spending £3million on building this road when it would be preferable to spend it on developing more environmentally sensitive alternatives such as pedestrian footpaths and cycling routes.

We can use the NWL budget to improve the pre-existing infrastructure to address congestion issues (as well as pedestrian, cyclist and public transport facilitation) in a far less environmentally destructive way.

I am also concerned about the large amount of public funds to be committed to the road and its ongoing maintenance. This could be better spent on care and there essential services.

We should be using the £300 million proposed for this link road to develop cycling and walking. And develop a green sustainable public transport system.

Secondly, the millions of pounds saved by the abandonment of the scheme can be used for the construction of cycle-ways and adapted public transport routes. These huge sums of money saved can also be transferred to social services, education and the health service, all of which need to be funded better in the wake of both immense cuts in Central Government funding and the COVID crisis.

Cross-cutting Theme 4: Comments about Covid 19 and other health issues (163 comments)

Since lockdown my use of Ringland Lane has changed: I have been walking along this road several times a week. I drive along it perhaps once a month. This, it appears to me, raises the general issue that your modelling for motor vehicle, pedestrian, equine and cycling journeys will have been gathered either before or during the Covid pandemic and therefore may not represent the situation in which we will find ourselves in the future, which may be different again.

In a post -COVID world, we don't need this massive road network. Just improve existing roads.

The close proximity of a four-lane carriageway to pedestrian and cycle traffic also raises issues health issues due to pollution. While traffic has dropped, and with it nitrogen dioxide levels, there are widespread concerns over a rise in speeding endangering those walking and cycling. Evidence suggests air pollution, including from exhaust fumes, significantly harms the survival chances of those with Covid-19. ...There are a [of] number studies showing higher levels of pollutants in proximity to roads."

I totally oppose the Western Link Road. In the light of Covid-19 (expected to be with us for a considerable time) and more people working from home, this road is not needed.

Air pollution is now known to be a major public health crisis, bringing early death to over 60,000 Britons each year. Although the research is at an early stage, there is building evidence that air pollution is a significant and sensitive factor in people being more prone to COVID-19 infection and more serious COVID-19 illness and mortality. Footpaths and bridal paths should not be placed right next to a source of NO2 and PM2.5. The road should not be built in first place.

A recent parliamentary report showed how short term exposure to air pollution increases risk of coronavirus infection and poorer COVID-19 clinical outcomes. Why are Norfolk CC not following latest science to minimise COVID-19 risks in future?

Since the beginning of the Covid 19 Pandemic it has become clearer than ever that we must improve our health and rethink our priorities for transport.

Section 7: Demographic Information

Demographic Information		
There were 398 responses to the question: 'Are you...?'		
Option	Total	Percent
Female	145	36.43
Male	227	57.04
Prefer to self-describe (please specify below)	7	1.76
Prefer not to say	19	4.77
Totals	398	100.00
There were 395 responses to the question: 'How old are you?'		
Option	Total	Percent
0-15	0	0.00
16-29	28	7.09
30-44	75	18.99
45-64	164	41.52
65-84	104	26.33
85+	2	0.51
Prefer not to say	22	5.57
Totals	395	100.00
There were 386 responses to the question: 'Do you have any long-term illness, disability or health problem that limits your daily activities or the work you can do?'		
Option	Total	Percent
Yes	36	9.33
No	321	83.16
Prefer not to say	29	7.51
Not Answered	386	100.00
There were 394 responses to the question: 'How would you describe your ethnic background ?'		
Option	Total	Percent
White British	339	86.04
White Irish	2	0.51
White other	7	1.78
Mixed	3	0.76
Asian or Asian British	2	0.51
Black or Black British	0	0.00
Chinese	0	0.00
Other ethnic background	1	0.25
Prefer not to say	40	10.15
Totals	394	100.00

Section 8: Equality and Rural Impact Assessment

Comments for Equality and Rural Impact Assessments (16 comments)

- The millions of pounds allocated to the NWL would be much better spent on a really excellent reliable public transport system that would give a real alternative to the car, especially as we have an **aging population** who will not be able to drive all their lives.
- By cutting off Access to and use of nearly all local routes [by closing Ringland Hills) this will in turn make access to local beauty spots etc difficult for those with **reduced mobility**.
- Integrated local transport - so someone can link cycling, public transport and walking. This is especially important for **women** who often have more complicated multiple journeys to do and are less likely to have access to a car.
- So far NCC have offered nothing except cycle and walking routes, no mention of including Weston Longville or Weston Green on any public transport routes. There is an **aging population** within the parish of Weston Longville, how many will have the opportunity to use cycle lanes or PRow? How many will be cut off from the outside world should commuting route be closed.
- If the bridge is green does it mean that it will have hedging and trees or just that it will be a raised pavement going over the road ... if it is hedged how safe will it be for **unaccompanied minors & women** to cross in the dark ?
- It seems that the County Council is expecting there to be hundreds of cyclists, walkers and horse riders descending on the area, which I find difficult to believe. Most people (especially **the elderly**) require a car to get about in this **rural** area, which has no bus service.
- Building bridleways and footpaths so close to a major road will cause health risks to people using these facilities, particularly **children**.
- The map showing the bus route option does not have our village on it. For **older residents** who cannot walk far or cycle we have to use our car. There has not been any provision for public transport for many years and it may not be viable. Ringland forgotten yet again.
- There is no public link to taverham from queens hills, a direct route from queens hills to taverham for residents needs to happen as many **children** on the estate attend taverham high school , and ideal for hospital journeys, open the existing not used bus lane, review access from queens hills to taverham and make this happen, queens hills is treated as lost world and needs some forward planning to improve logistics on and off the estate.
- The people (especially the **younger ones ie. 11-19 year olds**) are so trapped either through being priced out of transport or by not having transport routes to places they want to visit or work or have appointments for etc. Broadland and Norfolk as a whole need to realise that children of this County have been seriously hampered through lack of affordable links to work and this is your chance to show the country that Norfolk can lead the way to cheaply priced essential transport for all residents and visitors and you will have busy buses and less private cars.
- There are a high proportion of **low income families** living along the River Wensum. To get people to use buses the fares have to be much cheaper.
- We in Honingham have been pushing for public transport through the village for at least 10 years but no one is interested. As we have an **aging population** it is probably too costly.

- Older folk who do not drive but wish to visit the church [in Honingham] to attend a service or tend a family grave, are going to be effectively cut off. The new proposed route does not serve an **elderly population**. In fact most of your proposals do not serve the **elderly**, we need buses not a cycle route.
- This paper seem to only worry about how people will walk or cycle or go on a horse not people who go out in a car for pleasure as they are not able to go on all of these walks etc. etc. through various **health problems**.
- Too much emphasis on cycle use – I and my wife are both in our **80s** and how we can manage to shop and carry our bags on a bike is beyond me – keep as many roads open as possible to facilitate the majority of people and stop pandering to minorities.
- The consultation focuses on improving walking and cycling routes in the area of the NWL but does not address an improvements to a vital bus service for a village where a significant amount of the population is **elderly** and unable to access and make use of these new footpaths and cycleways.

Also note, with regard to **carers**: “Ringland & Weston have a degree of interdependence & **carers** & other local workers require motorised easy access between the villages.”

Section 9: Feedback on the consultation

Comments about the consultation process (69 comments)

There were 69 comments about the consultation (many were repeated in the response to different questions and are shown in the text below only once, the quotations shown are a sample).

- Consultation document doesn't mention Ringland Lane in Costessey or the bus lane from Queen's Hills to / from Ringland Lane in Costessey.
- This a biased consultation, offering people the opportunity to have limited, superficial input on a highly expensive, environmentally destructive, raised four-lane highway that would cut through the rural landscape. No genuine alternatives to the proposal are being offered.
- This consultation assumes I already agree with the proposed road. This is a biased consultation.
- There is no option listed above to enable us to choose the status quo, ie for the Western Link road to not be built. By not having this option this consultation is biased toward the assumption that the road should be built and does not cater for those of us who do not want our countryside to be destroyed, therefore this consultation is not fit for purpose.
- This consultation is a travesty: greenwash.
- For what it's worth this consultation like the previous is nothing but a tick box exercise to demonstrate to the planning inspectorate NCC has 'consulted' with local residents.
- This consultation does not give me the option of objecting to the road being constructed here.
- Just don't build the road. Are all questions like this? Anyone would think you are giving leading questions that will be used to support your expensive and environmentally damaging obsession with increasing car use by building yet more roads.
- This questionnaire seems to be human centric.
- To achieve Net Gain NCC should be in partnership with stakeholders where possible, seeking to share any benefits fairly among stakeholders, however as the council is not the greenest I believe this is an area where you are trying to hood-wink those invited to provide feedback via this consultation.
- I think this is quite a poorly formed question. It would be better if you could actually clarify what your proposals are for PRE in the question so as to clearly differentiate it from.
- Terrible question. I support public rights of way.
- This consultation is very confusing. Just scrap the project.
- The drawings which accompany the proposals are dreadful images of an over engineered, urban environment completely out of character with the actual landscape. Having only one choice of box to tick makes agreeing with some proposals and disagreeing with others, albeit under the same overall heading, extremely difficult.
- This consultation is a waste of time. The decision to build the road has been taken (although I don't know how you can afford it), and no-one on your committee gives a stuff about the little people who choose to walk or cycle.
- The artists impression is a joke, you have bridge engineers and have recently completed the NDR Broadland Northway.

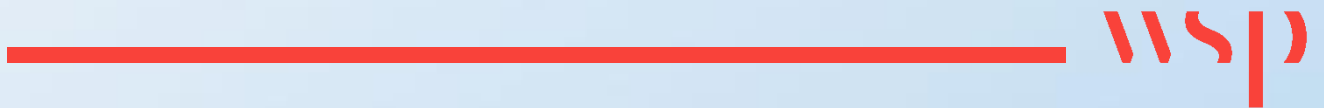
- And you should not rig this consultation to leave out the "don't even do it" option.
- This consultation is very narrow as it specifies, and these needs to be greater transparency about current issues, design targets at remedial measures available as well as funding to implement them if peoples environment access utility and quality of life are impacted, which appears inevitable.
- It is unclear in the consultation document which pathways (and for which users) will cross the new road at the Foxburrow green bridge - this is an unhelpful omission.
- Great to see the cycleway linking to Honingham which will hopefully encourage use of it to access the other side of the A47 which is too dangerous at present. It looks like you have listened to the feedback you had in the consultation phase of user Groups, well done.
- This consultation is very very weak on deliverables.
- Quite staggering that this consultation doesn't include the elephant in the room, namely "Do you still see a need for this road in view of the massive increase in home working?" or "Do you think a 720m viaduct to cross a 30ft river seems like overkill?"
- Please note that responding as an organisation rather than as an individual means that some boxes cannot be ticked and having only one choice of box to tick makes agreeing with some proposals and disagreeing with others, albeit under the same overall heading, extremely difficult.
- This consultation does not take into account the impact of the A47 Easton to North Tuddenham dualling project and the fact that the two projects will not completed at the same time.
- I'm disappointed by how misleading and obfuscated this survey has been.
- This consultation focuses on the local roads in the immediate vicinity of the proposed Norwich Western Link route, however the potential impacts cover a far wider area south towards the A11.
- It is a pity that the Local Access Consultation document is relatively silent on matters south of the A47 but I do understand that the key focus of the document is upon matters north of the A47.
- "I do not wish to see astronomically expensive infrastructure constructed in our county which comes with huge climate emergency risks and penalties, and is not Paris agreement compliant, and is planned to cause irreplaceable ecological damage which is not lawful under UK habitats and wildlife laws." Please put an option for this in future consultation, I am not alone.
- Following the public consultation held back in March/April of this year the scheme to upgrade the Easton to North Tuddenham stretch of the A47 to dual carriageway has been updated with more detailed designs for the junctions and the connections from those junctions into the local road network. Unfortunately this latest re-design has removed the proposed link road that was to join the new junction at Blind Lane to Church Lane in Lower Easton.

Report author: Ellie Phillips, Insight and Analytics, NCC

Updated version 6 November 2020

Appendix B

SUSTAINABLE TRANSPORT STAKEHOLDER WORKSHOPS NOTES & SLIDES



Sustainable Transport Workshop 2

Notes of Meeting

Norwich Western Link

Held on: Friday 24th January 2020

Time: 15:30pm

Venue: Rooms 1 & 2, Floor 8, Norfolk County Hall

Present:	Job Title/Organisation:
	NWL Stakeholder Manager, WSP
	Associate, WSP
	Principal Landscape Designer, WSP
	Norwich Cycling Campaign
	NCC Countryside Access Officer
	Sweco, Highways England (HE)
	Norfolk Local Access Forum (NLAF)
	Ramblers Norfolk Area Footpath Co-ordinator
	First Bus
	Transport for Norwich Manager
	Strategic Transport Team Manager
	NCC Councillor
	Konectbus
Note Taker:	
	Assistant Engineer, WSP
Apologies:	
	NCC Equalities Officer
	Sustrans
	Carriage Driving (NLAF)
	Pathmakers (NLAF)
	NCC Head of Passenger Transport
	Galliford Try
	Pathmakers (NLAF)
	Norfolk Local Access Forum
	NCC Major and Estate Development Team Manager

1.0	Introductions
	<p>Members introduced themselves – HE rep joined via Skype. Comments and questionnaires received via the previous (October 2019) workshop from stakeholders have informed the next steps in the NWL process.</p>
2.0	NWL Project Update
	<ul style="list-style-type: none"> · Surveys ongoing, e.g. ecology, geotechnical, traffic and topography · Development underway to define the horizontal / vertical alignment, and how the side roads will be crossed and whether there will be bridges or underpasses · Traffic data has been gathered across the study area · Intrusive site testing along the proposed route · Seasonal surveys for species · HE's main contractor is on board from August, to ensure that the A47 and NWL schemes interface correctly. · Change to Strategic Outline Business Case to increase emphasis on sustainable modes and include linkages with Transport for Norwich and Transforming Cities · Procurement for the preferred alignment is due to commence later this year · Traffic management discussions ongoing with neighbouring parishes <p>A47 Scheme</p> <ul style="list-style-type: none"> · HE is accelerating their programme, with a statutory consultation from late February to April 2020 · Currently working together with NCC/WSP on draft proposals for side road connections to southern dumbbell roundabouts <p>Since Sustainable Transport Workshop 1 – October 2019</p> <ul style="list-style-type: none"> · Feedback incorporated from NWL Local Liaison Group and Workshop 1 · Walking, Cycling & Horse riding Assessment Report baseline review complete · Identified a range of opportunities that are included in the draft strategy
3.0	Summary of Previous Feedback
	<p><i>See presentation slides for background and key themes</i></p> <ul style="list-style-type: none"> · Completed questionnaires were received from stakeholders and members of the NWL Local Liaison Group · Feedback has informed the emerging strategies put forward in the WCHAR and NMU documents · LLG feedback noted that improved walking routes was ranked highest and that all efforts should be made to keep existing PROWs open and improve them · Stakeholder feedback notes that a number of routes are already used by cyclists and may need improvement, crossings need to be introduced / improved and connectivity improvements are needed to remove gaps in the PROW network · Feedback identified an east-west desire line, crossing facilities needed on A47 and A1067 to overcome severance issues. This may assist users to access buses & PROWs to the north and south. · NWL could remove traffic from rural roads which could make active travel more attractive – eg routes would be less intimidating for cyclists.
4.0	Emerging Sustainable Transport & NMU Strategy
	<p><i>See presentation slides for background and key themes.</i></p> <ul style="list-style-type: none"> · NMU (Non-Motorised User) strategy close to the route is aimed at addressing severance issues that may be caused by the scheme and wider sustainable

Transport Strategy aims to support people to travel on foot, by bike and by public transport in the wider study area

- Improves travel choices for short journeys so there is an opportunity for modal shift

Bus Strategy

- Feedback from public consultation was that there need to be more buses at an increased frequency
- Western loop service to connect residential and employment areas proposed, currently at a journey time of 90 minutes
 - Route must be commercially viable
 - Longwater to Taverham route does not exist
 - A need to find out whether large numbers of people would use the service
 - Need to work out which parishes were interested in a new bus route
 - Key is to keep the route simple so that funding can be secured for a future route
- Representatives questioned how successful an hourly service would be
- Operator feedback from First Bus on the potential loop service suggests that if it is to be subsidised in the early stages it cannot be seen to compete with existing services.
- Timetable review by Konectbus shows the loop would take longer than an ideal one-hour service; it would perhaps be better to have a shorter linear route at a higher frequency rather than a full loop (e.g. Taverham to NNUH via Longwater or Airport to NNUH) splitting the loop into two sections.
- First Bus experience shows that currently people travel into central Norwich then out again to get from Taverham to NNUH and can do this on one ticket. Whilst away from the desire lines, this could be quicker than the loop if it only operates hourly. A previous three-year trial of an orbital loop service showed poor uptake.

NMU Strategy

- Retain private access routes
- Some roads identified as being in low usage could be changed
- Representatives noted that a PROW may be less attractive if it is next to the NWL – WSP stated routes can be screened and users segregated from traffic to improve enjoyment where they run parallel to the NWL.
- NCC officer queried why no cycle route was proposed alongside the viaduct structure, PROW officer highlighted that it had been agreed at the previous workshop that a bridleway would not be appropriate through the floodplain, as it would require the upgrading of routes within the sensitive landscape and routes would potentially be susceptible to flooding. NWL Team explained that a route over the viaduct would also require a much wider structure crossing the River Wensum Special Area of Conservation (SAC) and the ecological sensitivity of the SAC would most likely outweigh the benefits. There is currently no overwhelming evidence that there is a need for a cycle crossing over the River Wensum. All of the connecting onward routes are also currently public footpaths, so there would be no onward connectivity benefit of a cycle crossing of the River Wensum and existing bridges crossing the river could be more readily used by cyclists once NWL alleviates traffic from parallel routes.
- Concerns expressed over motorcycles using bridleway and restricted byways
- PROW team suggested that FP9 should be upgraded to restricted byway status to allow carriage drivers to continue north of Breck Road – possibly with structures such as Kent Carriage gaps to prevent access by motor vehicles. NWL Team

	<p>highlighted that this would need consent of the landowner, especially if the track is currently used by vehicles, but will consider the merit of upgrading to Restricted Byway to create a contiguous route for all NMU's between Honingham and Ringland Lane.</p>
5.0	Next Steps and Public Consultations
	<p><i>See presentation slides for background and key themes.</i></p> <ul style="list-style-type: none"> · Future work to include: <ul style="list-style-type: none"> ○ Ongoing engagement with relevant groups ○ Signage Strategy ○ NMU Strategy ○ Bus Strategy ○ Air quality and noise assessments ○ Public consultation
6.0	AOB
	<p>LAF Representative mentioned that the next PROW Sub-Group will be held on 16th March, and WSP / NCC are invited to attend to give an update on NWL project. This may be good timing for the NWL Team to come along to highlight the Spring public consultation.</p> <p>HE / Sweco highlighted their statutory consultation is starting 26th February 2020.</p> <p>Close meeting at 16:30.</p>

Sustainable Transport Briefing 3

Notes of Meeting

Norwich Western Link

Held on: Friday 14th August 2020

Time: 14:00pm

Venue: Microsoft Teams

Present:	Job Title/Organisation:
	NWL Stakeholder Manager, WSP
	Associate, WSP
	NWL Stakeholder and Engagement Manager, NCC
	Senior Engineer, NCC
	Konectbus
	Norwich Cycling Campaign
	NLAF - Ramblers
	NLAF - Pathmakers
	Norwich Cycling Campaign
	NCC NLAF PROW Sub-Group organiser
	British Horse Driving Society
	Ramblers Norfolk Area Footpath Co-ordinator
	Transport for Norwich Manager
	NCC Head of Passenger Transport
	Highways England
	NLAF
	NCC Countryside Access Officer, North and East
Note Taker:	
	Assistant Engineer, WSP
Apologies:	
	NCC

1.0	Introductions
	<p>WSP introduced the Local Access public consultation that had been launched by NCC and explained the purpose of the meeting was to give the group an update on how the scheme was progressing and latest proposals since the previous workshop in January 2020. WSP apologised that we were unable to run a meeting in person due to the COVID-19 restrictions and government guidance in place at the time. However, we hoped that an online meeting was still helpful to provide an update and gives an opportunity to talk through the proposals.</p> <p>WSP thanked everyone for their previous input to the emerging proposals, albeit the options and ideas provided for consultation are still work in progress so getting feedback from the organisations on the call was important to help NCC finalise the scheme working towards a planning application next year.</p>
2.0	NWL Progress Update
	<ul style="list-style-type: none"> · First workshop involved brainstorming ideas to take forward as sustainable travel ideas for the NWL scheme · The NWL will remove traffic from local residential areas to make it more attractive for walking, cycling and horse riding · To progress with the scheme, the tender process commenced in June 2020 · Ensure we have input from all groups to inform further planning ideas · Followed guidance for large-major road schemes e.g. WCHAR CD195 · Bi-monthly LLG meetings had been held prior to the lockdown to involve local parishes with the sustainable transport schemes. Expect to reconvene the LLG next week for an online meeting 18 August. · All work refers to design guidance for technical design in the NMU Strategy · All documents are ready for the tender process · The project has a significant cost, so OJEU (Official Journal of the European Union) notices are required. · NCC are working closely with Highways England as they are progressing with the A47 dualling scheme, especially in relation to the common grade separated roundabout interface at Wood Lane/Berry's Lane junction. · New guidance has been released in July – LTN 1/20, which is being analysed to understand how it will impact our design but has not yet been taken into account. This would be considered in design work moving forward.
3.0	Public Consultation
	<p><i>See presentation slides for background and key themes.</i></p> <ul style="list-style-type: none"> · Overview <ul style="list-style-type: none"> ○ NCC launched a Local Access consultation 27th July – 20th September ○ Instead of public events, NCC are offering opportunities for online appointments with members of the public and stakeholder groups to speak to members of the project team. Details of how to book an appointment were provided. ○ Ecology team are undertaking extensive surveys across the area and designing up ideas for green bridges to help ecology/wildlife to cross safely ○ In the next consultation will be the detailed design of the viaduct and road; traffic mitigation will be considered (new traffic surveys were undertaken to revalidate the NATS model to a 2019 base year so the model is currently being updated) This will then inform the OBC and Environmental Assessment. Environmental mitigation is also being worked up

- The EIA scoping statement was submitted to the LPA in June 2020 and is publicly available on the planning portal
- Working towards submission of a planning application in Autumn next year.
- Timeline
 - Planning application to be submitted in late 2021 with construction expected to begin late 2023. Road likely to open by the end of 2025.
- Objectives
 - 4 high level objectives, as part of our business case, we need to measure how we are performing against the objectives to see how beneficial it will be to the wider area.
 - 6 specific objectives that apply to the local area
- Proposals for local roads that cross the NWL
 - Ringland Lane to become an underpass with options to either prohibit motor vehicles and restrict access to NMU's only, or remain open to all traffic
 - Closure of Church Hill Lane/Weston Lane to all users, with construction of a local diversion route for NMU's to the west side linking with Ringland Lane
 - Closure of Breck Road to all users, with construction of a local diversion route for NMU's to the west side linking with The Broadway
 - The Broadway to be bridged over the NWL as a Green Bridge with NMU access
 - Possible tweaks to Berry's Lane / Wood Lane following the HE public consultation
- Feedback from Stakeholder Workshops and LLG
 - Make more connections into the existing PROW network
 - Reducing vehicle movements on local roads (LLG, particularly parishes most affected in close proximity to the NWL would like to see roads that cross the scheme closed to traffic where possible – hence consultation considers this more radical approach. Previously it had been assumed that all roads would be kept open so this is an important change to consult local residents on to understand how acceptable the proposals are)
 - A full route along the NWL may not be well used – and focus should instead be placed on east-west routes
 - Work with HE to reduce severance of the A47
- WSP explained the changes to PROWs and expansion of existing network in the immediate vicinity of the NWL, providing an overview of the NMU Strategy describing the proposals and approach to developing an integrated and joined-up network:
 - Acknowledged that the NWL would sever existing east-west routes – so mitigation is required to preserve access for NMU's.
 - Localised diversions would accommodate PROW users where NWL would sever existing routes at Breck Road and Weston Road/Church Hill Lane
 - The Broadway would become a traffic-free route other than to landowners, and new link with Breck Road. A barrier will be added to The Broadway to prevent motorised vehicles and protect the local landowners. A green bridge would enable non-motorised users to cross the NWL.
 - Honingham RB1 to be diverted to the east side of the NWL linking Honingham with The Broadway via a new underpass of the A47 provided by HE and this would connect with onward routes around Honingham and the Village Hall. Working with HE to integrate the NWL NMU Strategy with the A47 proposals

- Existing public footpath between Telegraph Hill and Church Hill Lane will be upgraded to Restricted Byway status
 - Blackbreck Lane to remain as a relatively traffic-free route for NMUs
 - To mitigate closure of Church Hill Lane, a bridleway link is proposed on the western side of the NWL linking Church Hill Lane with Ringland Lane to preserve connectivity between Weston Green and Ringland.
 - Footpaths to the north of Ringland Lane will not be upgraded, this avoids environmental concerns of adding a further crossing of the River Wensum
 - New footway / cycleway to the north side of the new dualled section of A1067.
- Proposals to Ringland Lane
 - Option 1
 - § Retain Ringland in its current state as open to all traffic
 - § Due to low traffic flows, there is no expectation to provide a segregated surface for NMUs other than a footway to the south side of Ringland Lane to link Blackbreck Lane with the proposed Bridleway to the west side.
 - Option 2
 - § Closed to all motorised traffic and make it a no-through road
 - § Only open to NMUs and local private access
 - Local roads around the scheme are likely to experience reduced traffic flows and will be more attractive to NMUs

Rep – suggested that cyclists will want to cross the NWL to go towards Dereham at the south-west of the NWL scheme, there doesn't appear to be any provision for this. WSP responded that HE were currently updating their scheme and would be better placed to consider east west links to Dereham.

Rep asked if there was a favoured option for Ringland Lane – WSP responded that NCC don't have a preference, hence we are seeking feedback from the public on two options.

Rep – asked if Blackbreck Lane was to be downgraded to Restricted Byway status and prohibit motor vehicles (Green Laners)? -WSP – responded that we are not proposing to change the status of Blackbreck Lane. WSP added that this is one of the few routes available for some users in the area, so previous feedback had indicated it was preferable to retain the current status.

Rep – suggested improved surface on Blackbreck Lane to make it more suitable for cyclists? – WSP – not considered currently, but a proposal that could be considered in the future

Rep agreed that an asphalt surface would encourage increased motor vehicle use – WSP agrees that this is why an upgraded surface is not being considered.

Rep– queried if Ringland Lane was closed to traffic would it be a restricted byway, as it is used frequently for carriage drivers? Carriage drivers look for circular routes? WSP – on the east side it will be open for carriage users.

Rep wondered why just a bridleway from Weston Road to Ringland, not a Restricted Byway? WSP – this is something we are consulting on to get the best balance, the option is there for Ringland Lane to remain open as is and alternative routes are available for carriage drivers.

Rep suggested to add staggered barriers to allow carriage drivers through but limit vehicles. WSP – we had considered Kent carriage gaps previously but if we had low level posts in the ground this would be a potential safety issue especially in hours of darkness. PCIk added that we also need to consider access for agricultural vehicles, so a gate appears to be the most appropriate solution

Rep offered to send over an example of successful barriers in place to allow continued use for carriage drivers.

- WSP explained that LLG parish reps had requested that NCC close all roads that cross NWL to motor vehicles, the consultation is now open to see how this proposal would impact the NMU groups

Rep– commented on the idea of having all roads closed to traffic - why is Ringland Lane the only one to remain open? He feels it should be kept open. WSP stated that it may turn out not be viable to close all routes that cross the NWL, in which case Ringland Lane could be kept open to motor vehicles, but NCC team does not have a preference, so the decision will be influenced by feedback from the public and affected landowners.

- Concept design for Green Bridges was indicated with an artist's impression of The Broadway – an important bat crossing, a green bridge would support wildlife and NMU movement. Hedges along the bridge could provide shelter and protection for protected species, plus continuation of foraging habitat over the NWL for creatures to follow. The team is working with Natural England and an Ecology Group to get evidence from other examples for green bridges.

4.0 Wider Sustainable Transport Measures

- WSP gave an overview of the wider sustainable transport options being considered for inclusion in the scheme.
- The consultation asks for feedback on what people would like us to consider (top 3 options), as it may not be possible to do all of them, so they are being prioritised.
- Options 1-3 include three new crossing options for the A1067
- Option 4-8 are cycle-friendly routes proposed on roads that are likely to experience traffic relief following the opening of the NWL road scheme – priority measures on these routes would potentially make cycling less intimidating
- Route 5 considers a crossing of the A47 into the Food Enterprise Zone – would require a joined up approach with HE, and would encourage journeys to the Park and Ride in Costessey and improve access to Easton College.

Rep – a better crossing is also needed for NMUs at the Longwater Junction, as it is currently very dangerous – WSP – potential junction improvements at the Longwater Interchange are being considered – this would also look at NMU provision.

5.0	<p>Bus Strategy</p> <ul style="list-style-type: none"> · WSP explained the bus strategy and how it had evolved since the last workshop. · Following the previous comments, the initial idea of a full loop around the western fringe of Norwich had been split into two sub options to form an eastern and western Arc service. We were seeking feedback on which option would offer most benefit and have most uptake. · This would connect local residential development to workplaces such as UEA and NNUH without the need to travel to central Norwich to change buses. · As previously proposed by bus operators, two sub-loop options would help to speed up journey times and could operate more frequently than a full loop service so would potentially attract more patronage. · Specific routing for the buses have not been confirmed yet but NCC would work with operators to find a solution that was workable with appropriate vehicles. <p>Konectbus updated on a new service they were about to launch with UEA to support their plans to displace car parking to the Norwich Airport Park and Ride, as the Costessey Park and Ride site is at capacity. New route to begin on the 14th September to include the boundary roundabout and Earlham road, so a section of the western arc option will be served from September 2020. WSP thanked Konectbus for the update and felt that it was positive that part of the Arc was being implemented.</p> <p>NCC officer – asked if we are expecting it to be commercial? If subsidised, we need to be careful that it doesn't compete with other services. Could potentially use the bus gate to come in from Queen's Hills to link it to Costessey? – WSP – this is not something we have ruled out. We had a call with Costessey Town Council and they would like us to consider routing via West End too so we are looking at which is most practical and viable.</p> <p>NCC officer – students living in this area (Thorpe Marriott / Drayton / Taverham) find it hard to get to Easton College as they have to go into the City and out again. WSP – we can look into this. NCC officer asked to make sure the consultation brochure will get to Easton College for a response.</p> <ul style="list-style-type: none"> · WSP final decisions on bus service viability will consider funding and passenger numbers – which the consultation feedback can help us to evidence.
6.0	<p>AOB</p> <p>Konectbus – to build a sustainable bus route, it is helpful to build upon a strong peak movement, need to identify a large number of student movements from Taverham / Costessey / Drayton into Easton College, this could then encourage a new bus service.</p> <p>Rep – the route through Ringland Hills is very steep and not attractive to cyclists so a bus route here would possibly be better.</p> <p>Rep – good to see the improvements, are you expecting responses from individuals or organisations? WSP – if you could respond as an organisation it would be ideal and then if you would like to provide a further response as a local resident, that would also be very helpful.</p> <p>Rep would like to see the wider transport proposals overlaid on an OS 1:25 scale map, so that impacts on the Public Rights of Way can be seen.</p> <p>Close meeting at 15:30</p>

Stakeholder Workshop

Norwich Western Link



18th October 2019



Agenda

- 1 – Introductions and apologies
- 2 – Background to the NWL scheme
- 3 – NWL scheme programme
- 4 – Sustainable Transport for NWL
- 5 – Next steps and seeking your feedback

2

Background to the NWL scheme

The need for the scheme:

- Calls to fill in the 'missing link' between A47 and Broadland Northway (NDR)
- Made an infrastructure priority in 2016
- Two public consultations to date
- Strong support to create a link road from
 - *Members of the public*
 - *Businesses*
 - *MPs and local councils*
 - *Emergency services*

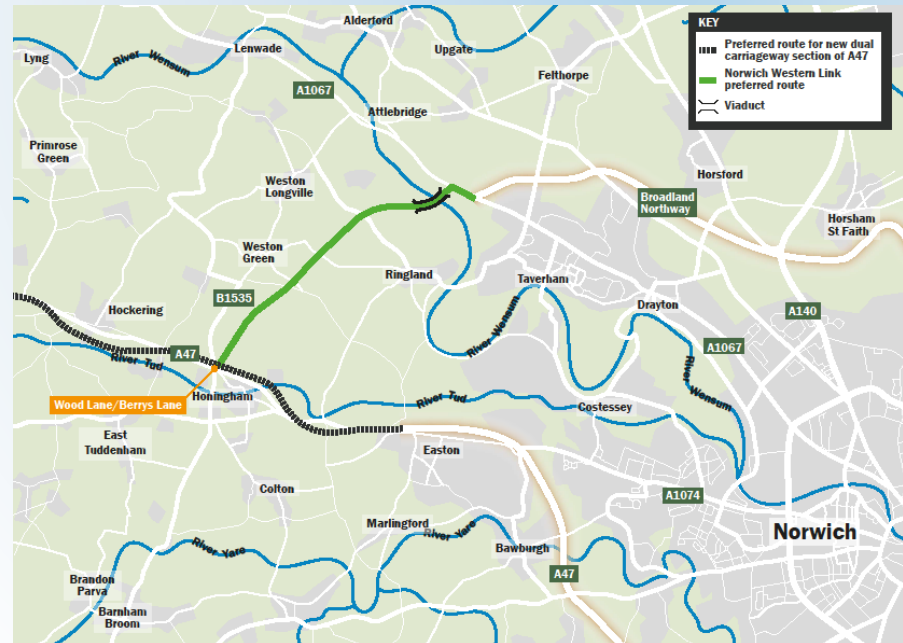


Missing link

Background to the NWL scheme

Progress to date:

- Route Option Selection process undertaken
- Preferred Route (C) confirmed on 15th July by NCC cabinet
- Transport East confirmed NWL as a regional road infrastructure priority in July
- Strategic Outline Business Case (SOBC) submitted to DfT on 31st July.



Preferred route

Relevant scheme objectives:

- Make the transport network safer for all users (including non-motorised users such as walkers, cyclists, horse-riders)
- Encourage a shift to more sustainable modes of transport, such as public transport, walking and cycling
- Improve access to green space
- Contribute to the improved health and well-being of local residents
- Provide traffic relief (and reduce noise and emissions) within residential areas
- Reduce congestion and delay, and improve journey time reliability, on routes in the area to the west of Norwich

2

Background to the NWL scheme

Ongoing activities:

- Preparation of the Outline Business Case
- Tender specification work to procure a contractor
- Design development for the preferred route
- Traffic modelling
- Geotechnical site investigation
- Surveys including ecology (fish, macrophytes, reptiles, bats, badgers etc), and topographical
- Ongoing engagement with relevant groups and organisations e.g. Parish Councils, Public Transport Operators
- Walking, Cycling, Horse Riding Assessment
- Sustainable Transport Strategy

3

NWL scheme programme

Milestone	Current estimate
Regional priority status agreement – Transport East meeting	July 2019
Preferred route established – decision at July Cabinet	15 th July 2019
Strategic Outline Business Case (SOBC) together with the Regional Evidence Base (REB) submission to DfT	July 2019
Outline Business Case (OBC) submission	Autumn 2020
Design and Build Contractor appointment	Autumn 2020
Formal Pre-application Public Consultation	Late 2020
Planning Application submission	Spring 2021
Full Business Case (FBC) submission	Summer 2022
Start of construction work	End 2022
Road open	Early 2025

The Sustainable Transport Strategy

- It is aimed at:
 1. **Mitigating severance issues that may be caused by the scheme.**
 2. **Supporting people to travel on foot, by bike and by public transport in the study area**
- The NWL crosses several existing non-car routes – there may be opportunities to divert some routes or retain and improve the quality of those that are well used.
- In some cases, improvements to facilities in the wider study area can result in greater user benefits than incorporating dedicated facilities along the scheme preferred route alignment.
- For example, enhancing accessibility and safety for non-motorised users on existing routes where there would be traffic relief as a result of the NWL scheme.

Seeking your input is important to us to inform the mitigation design and Non-Motorised User Strategy:

This workshop will explore how we can design for the following user groups:

- *Pedestrians*
- *Cyclists*
- *Equestrians*
- *Mobility impaired users*
- *Public transport users*
- *Other users, and traffic management measures*

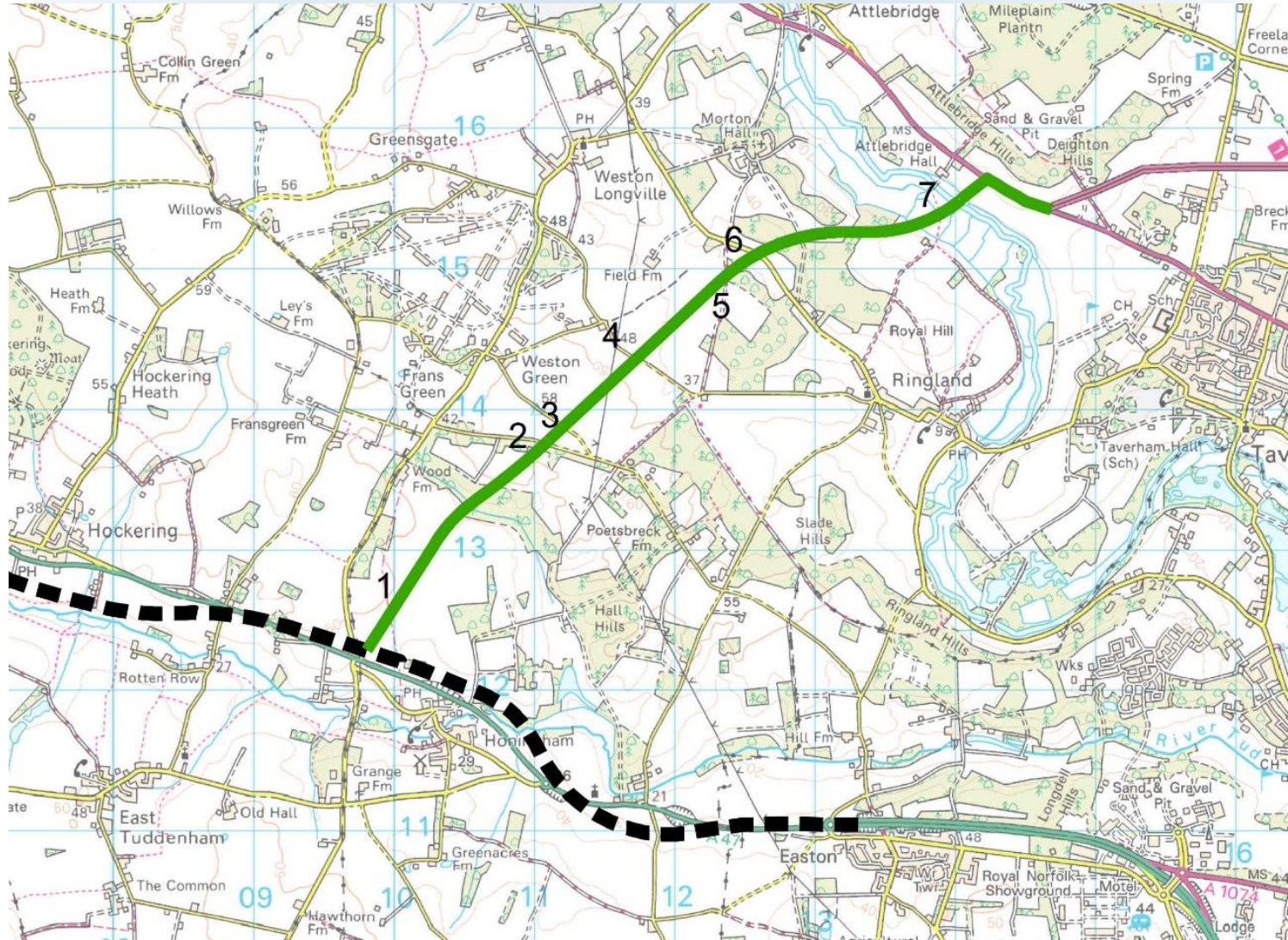
We would like to understand your priorities so we can factor this into the scheme, and communicate ideas to others in the council, if they align better with other local initiatives.

Part 1. Mitigating Severance Issues

Mitigating Severance

We would like to understand how you use the existing routes crossed by the scheme currently, and how you would like to see them treated as part of the NWL scheme.

1. Honingham Restricted Byway 1
2. The Broadway
3. Breck Road
4. Weston Road
5. NCC Maintained Track
6. Ringland Lane
7. Ringland Footpath 1



We would also like to hear your views on how we can improve opportunities for Sustainable Travel in the west of Norwich:

We would like to understand how you use routes in the wider study area around the NWL, where you are travelling to and from and how you what improvements would be helpful to local transport user groups:

- *Pedestrians*
- *Cyclist*
- *Equestrians*
- *Mobility impaired users*
- *Public Transport Users*
- *Other users, and traffic management measures*

We would like to understand your priorities for each of the above user groups, so we can factor this into the scheme where relevant, and communicate ideas to others in the council, if they align better with other local initiatives.

Designing for Pedestrians

- What are the key issues faced by pedestrians?
- Where are the gaps in the local network?
- What can we do to help improve things?

- Pedestrians typically walk up to about 25 mins to access jobs, schools, shops and local facilities.
- This equates to about a 2km walking distance at a typical average walking speed.
- Less mobile users travel more slowly
- Pedestrians tend to prefer:
 - Infrastructure on key desire lines
 - Shallow gradients
 - Minimal Steps/Ramps
 - Safe Crossing points
 - Secure environment
 - All weather surfacing



Designing for Cyclists

- What are the key issues faced by cyclists?
- Where are the gaps in the local cycle network?
- What can we do to help improve things?

- Cyclists typically ride about 25 mins to access jobs, schools, shops and local facilities.
- This equates to about a 5km distance at a typical average cycling speed.
- Electric bikes may extend this range and make hills easier to negotiate
- Cyclists tend to prefer:
 - Good cycle parking at key destinations
 - Cycle Lanes on carriageway in 30 mph zones
 - Segregated cycleways/bridleways for leisure
 - Shared surface separated by a verge
 - All weather surfacing
 - Toucan Crossings in urban areas
 - Underpasses or ramped bridges
 - Ramps preferred - Avoid Steps



Designing for Equestrians

- What are the key issues faced by equestrians?
- Where are the gaps in the local network?
- What can we do to help improve things?

- Where possible new cycle routes to be provided for NWL would be multi-user routes which are also suitable for equestrians
- Equestrians tend to prefer:
 - Mounting blocks if dismount required
 - Ramps preferred - Avoid Steps
 - Taller parapets for riders
 - Shared surface widened beyond 3m
 - Grass horse margin
 - Quieter low traffic routes
 - Pegasus crossings
 - Height clearance of 2.8m



Inclusive Design

- What are the key issues faced by impaired users?
- Which local facilities are difficult to access?
- What can we do to help improve things?

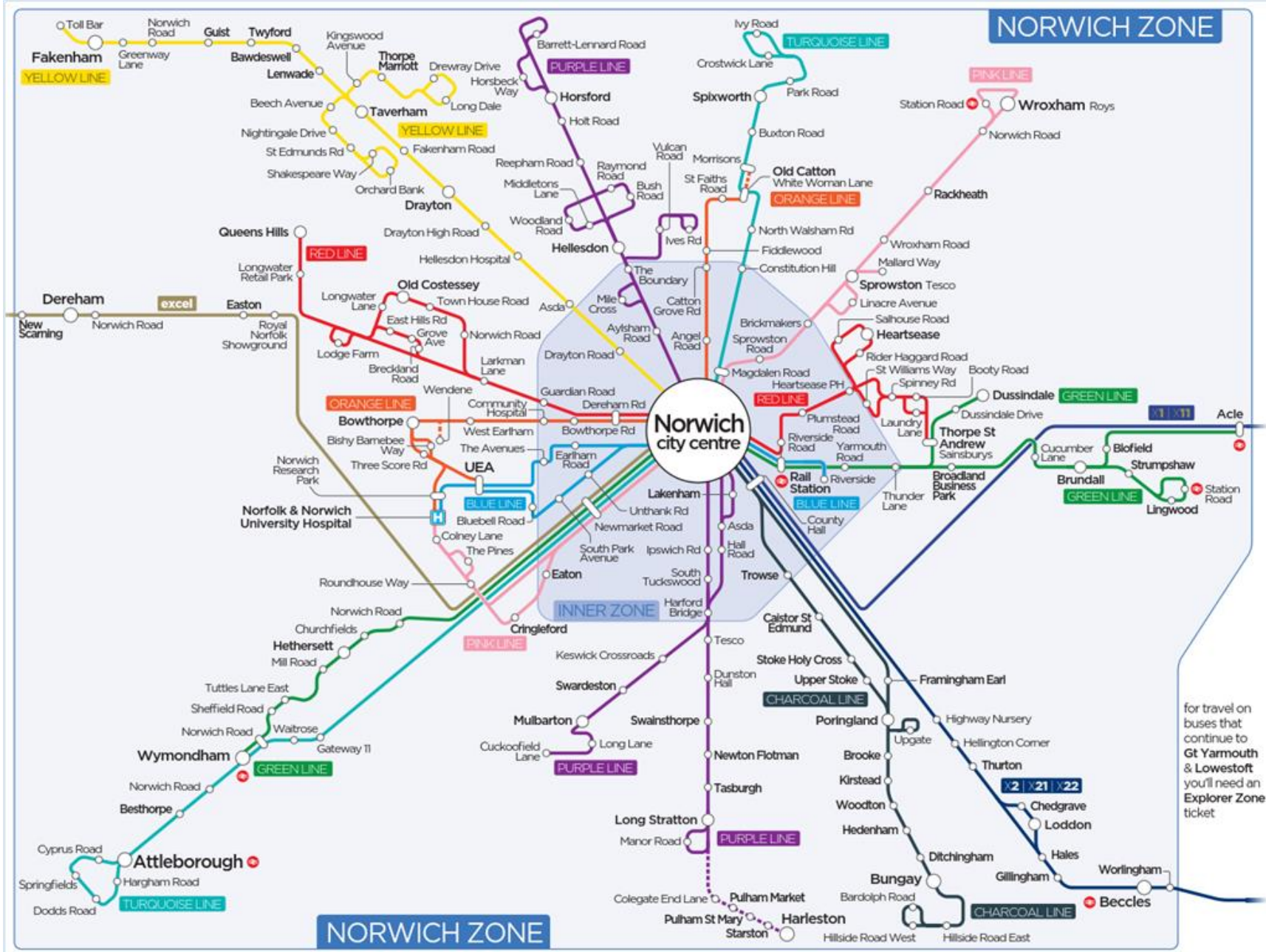
- The Equalities Act 2010 requires any new infrastructure to be accessible to all – this means we cannot discriminate against people who have protected characteristics including (amongst others):
 - Age and Gender
 - Visually impairment
 - Hearing impairment
 - Wheelchair users or difficulty walking
 - Disabled Users tend to prefer:
 - Shallow ramp gradients no steeper than 1:20
 - Contrasting surfacing
 - Tactile paving
 - Kerbed roads
 - Short diversions
 - Resting places/seats



Public Transport

- What are the key issues faced by bus users?
 - What facilities are difficult to access by bus?
 - What can we do to help improve things?
-
- The Public Transport System in Norwich is a competitive market industry with local bus operators responding to market demand.
 - Bus routes are naturally focussed on radial routes to central Norwich from market towns as these generally have good catchments.
 - Bus infrastructure improvements could include:
 - New or improved bus stops
 - Bus shelters
 - Information display boards
 - Raised Kerbs at bus stops
 - Bus Lanes on key bus routes
 - Bus gates/bus only links
 - Bus priority at junctions





bus routes in the Norwich cityzone



Traffic Management

- By introducing additional delay or inconvenience, strategic traffic can be deterred from rural routes and encouraged to use NWL once in place.
- Traffic management measures can also encourage walking, cycling and public transport use.
- Types of traffic calming could include:
 - Horizontal Deflection (Chicanes, width restrictions, priority give way systems, speed limit gateway features)
 - Vertical Deflection (speed humps, cushions, raised tables)
 - Pedestrian crossings can also cause delay to traffic whilst improving opportunities for mitigating severance issues
 - Reduced speed limits
 - Weight restrictions
 - Reallocation of road space
 - Revisions to junctions
 - Interactive signs
 - Changes to road markings



5

Next steps and seeking your feedback

We need your local knowledge and views on current walking / cycling / horse-riding / public transport facilities and traffic management to help answer questions like:

- How are the existing routes crossing the proposed route alignment used?
- Are there any gaps in the local network?
- What are the main barriers to sustainable travel?
- How might you travel differently with NWL in place?
- What traffic management measures on the existing road network would you like us to consider?

**Please use the questionnaire forms to answer, drawing feedback from your users, and return by 1st November 2019 to *Hattie.Gibbs@wsp.com*.
Max 200 words per question**

Stakeholder Workshop

Norwich Western Link

WSP

24th January 2020

Image: Sustrans

Agenda

- 1 – Introductions and apologies
- 2 – NWL Project Update
- 3 – Summary of Previous Feedback
- 4 – Emerging Sustainable Transport & NMU Strategy
- 5 – Next steps and Public Consultation
- 6 - AOB

NWL Project Update

Surveys – Ecology, Geotech, Traffic, Topo
Developing Preferred Route Alignment

- Horizontal Alignment
- Vertical Alignment
- Side road crossings
- Wildlife structures

Interface with Highways England A47 dualling
SOBC edits following DfT Comments

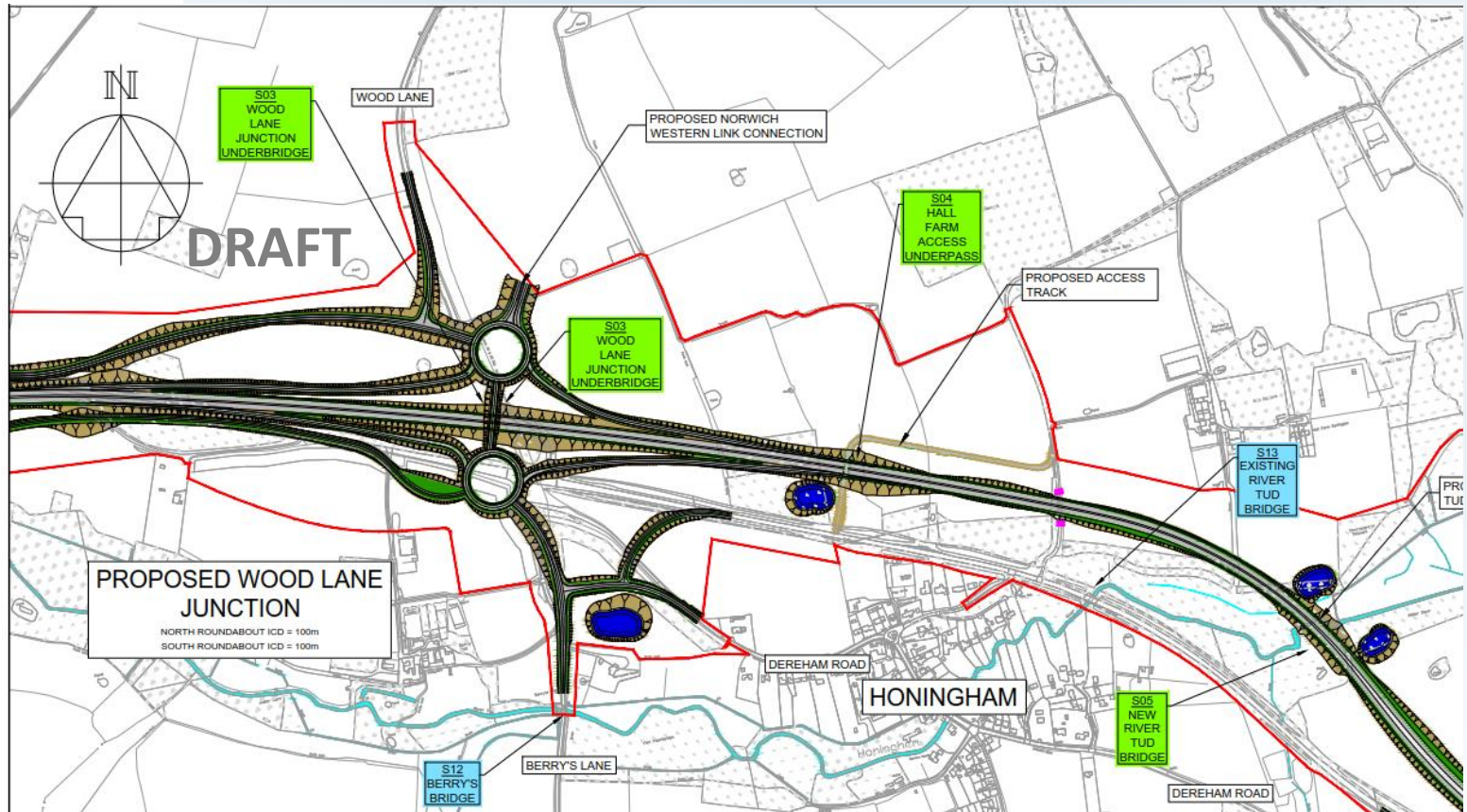
Liaison with DfT regarding update to Traffic Model
Procurement preparation

Developing the Sustainable Transport Strategy
EIA and TA scoping commenced

A47 Scheme Interface

A47 Upgrade

- HE now working to accelerated programme
- Statutory Consultation likely to be early 2020
- NWL team reviewed HE work-in-progress designs
- A47 & A1067 junction modelling



Sustainable Transport tasks since October:

- **Ongoing engagement with relevant groups and organisations e.g. Parish Councils, Public Transport Operators**
 - Next Local Liaison Group meeting scheduled 4th February
- **Non-Motorised User Strategy**
 - To inform the procurement package
 - Focussed along NWL route and sideroad crossings
 - Measures proposed, include new bridleways, improved signage and creation of new walking and cycling routes
 - Working with landowners
- **Walking, Cycling, Horse Riding Assessment – WIP Draft**
 - Baseline review
 - Input from stakeholders
 - Identification of wider opportunities
 - Covering 5km study area around the NWL scheme
- **Bus Strategy**
 - Underway and informed through liaison with bus operator
 - Western Loop Bus route option being developed
- **Traffic Management Discussions with Parishes South of A47**

Stakeholder Feedback

Stakeholder Feedback

- Completed questionnaires received from stakeholders and members of Local Liaison Group.
- Feedback informed emerging strategy put forward in the Walking, Cycling & Horse Riding Assessment and NMU Strategy
- Improvements suggested include:
 - Providing improved circular connectivity for recreational walks and active movement;
 - Commuting and purpose driven desire lines tend to be East-West;
 - Create new routes or divert existing PROWs to improve opportunities for active movement
 - Improved signage and wayfinding to routes.
 - Improve crossing facilities at north and south edges of scheme (A1067 and A47)
 - Improve strategic connectivity to Mariotts Way and Pedalways
 - Improve access to buses and bus stops

3

Stakeholder Feedback

Stakeholder Feedback:

- Barriers to use of sustainable modes were:
 - Standard and safety of routes;
 - Maintenance issues;
 - Lack of bus services through study area;
 - Habit / attitude; and
 - Time taken in comparison to private car travel.
- **Sustrans** urges NWL to encourage active travel by continuing the infrastructure for active travel around the western link;
- Recommended that signing with blue way markers is used, as has been successful with the Marriott's
- Way to increase use by horse riders;
- Bridges/grade separated crossings are encouraged on the NWL crossing routes and desire lines; and
- Sustrans would be happy to help contribute to early designs to improve the design of the project.

Stakeholder Feedback:

Routes already used by cyclists (may need improvement)

- For commuting and access to key facilities the desire lines are generally east-west
- Weston Longville to Taverham/Drayton/Costessey
- Lenwade/Attlebridge to Norwich via Marriott's Way
- Low traffic route parallel with A47 via East Tuddenham, Honingham, Easton, Bawburgh

Crossings that need to be introduced / improved

- New crossing on A1067 at Attlebridge
- Upgrade existing crossing at Lenwade
- New crossing of A47 at Dog Lane, Easton
- New crossing of A47 west of Hockering

Missing links/potential new links/connectivity improvements:

- Weston Green to Easton via The Broadway
- Easton to Ringland
- East-west routes through Costessey from West End to Marriott's Way.

Local Liaison Group Feedback:

- Key destinations for local parishes were key facilities (medical, shops, services, community facilities and jobs within their local area), Norwich City Centre, Longwater, Mattishall and Dereham and NNUH
- Routes utilised were the A140, A1067, A11, B1108, B1149 and rural roads.
- Along all the routes crossed by NWL, the key mode used across all seven was walking.
- Improvements people would like to see:
 - Improved walking routes was ranked highest;
 - Side roads closed to through traffic;
 - Improved crossing facilities for NMUs;
 - Lower speed limits, introduce and enforce weight restrictions on local roads to discourage HGVs and through traffic
 - Existing PROWs to remain open and improved

Emerging Sustainable Transport Strategy

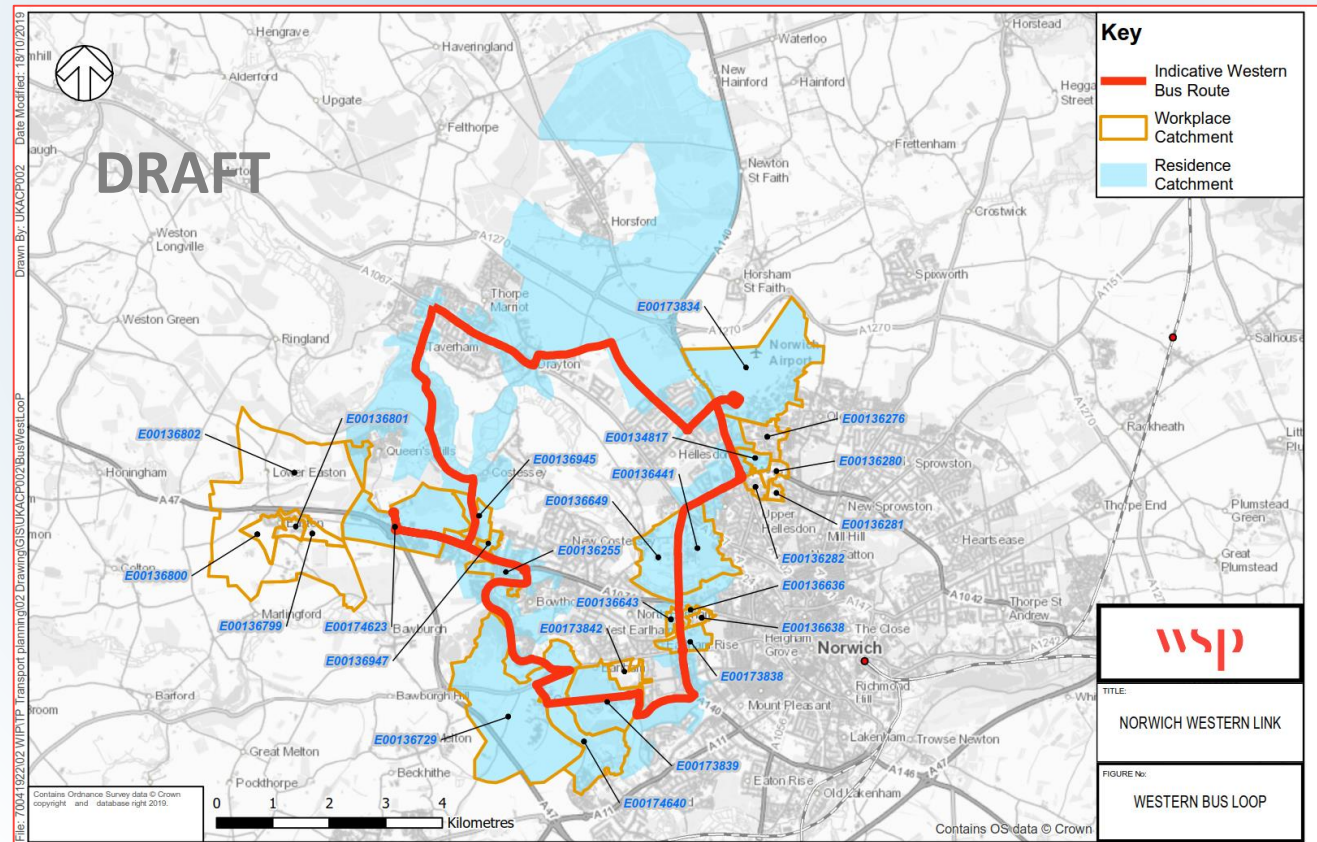
- It is aimed at:
 - 1. Mitigating severance issues that may be caused by the scheme.**
 - 2. Supporting people to travel on foot, by bike and by public transport in the study area**
- The NWL crosses several existing non-car routes – there may be opportunities to divert some routes or retain and improve the quality of those that are well used.
- In some cases, improvements to facilities in the wider study area can result in greater user benefits than incorporating dedicated facilities along the scheme preferred route alignment.
- For example, enhancing accessibility and safety for non-motorised users on existing routes where there would be traffic relief as a result of the NWL scheme.

Bus Strategy

- Prepared alongside the Walking, Cycling & Horse Riding Assessment and NMU Strategy which all feed into the STS
- Using data gathered through consultations, stakeholder engagement and catchment analysis, a western bus loop has been created.
- It would service large residential areas, Taverham, Drayton, Costessey, Longwater, Norwich Airport, UEA and NNUH.
- Possibly an hourly loop
- Indicative timetable
- Improvements

Bus Strategy

- Dialogue between bus operators is underway to examine the feasibility of a western loop service.
- Improved access to radial route services
- NWL improves connectivity with Park and Ride



4

Sustainable
transport for
NWL

NMU Strategy





NMU Strategy

Avoid where possible closing Public Rights of Way.

Where diversions are required, the length of alternative routes will be kept to a reasonable length

Diversion routes will be developed in accordance with the DfT guidance TD91/05.

Seek to improve surfacing and accessibility where possible aligned with Sustrans and BHS guidance

Avoid, or minimise disturbance to adjacent landowners and farm operations.

Proposed maintenance tracks can be utilised as new links between Public Rights of Way's and local roads.



NMU Strategy

Where minor roads or private accommodation routes to be retained cross the NWL, bridges or underpasses will be provided where practicable for use by NMU's including equestrians.

Some quieter routes are proposed for downgrade to Restricted Byway or Bridleway to restrict motorised vehicle traffic

NMU provision around the A47 junction will require coordination with Highway England to create a joined up strategy.

Landscaping proposals will take into account security threats to footpath users, particularly in remote rural areas.

NMU Strategy

Existing routes crossed by the NWL

DRAFT

Existing

Public highway



Unsurfaced highway



Public Right of Way

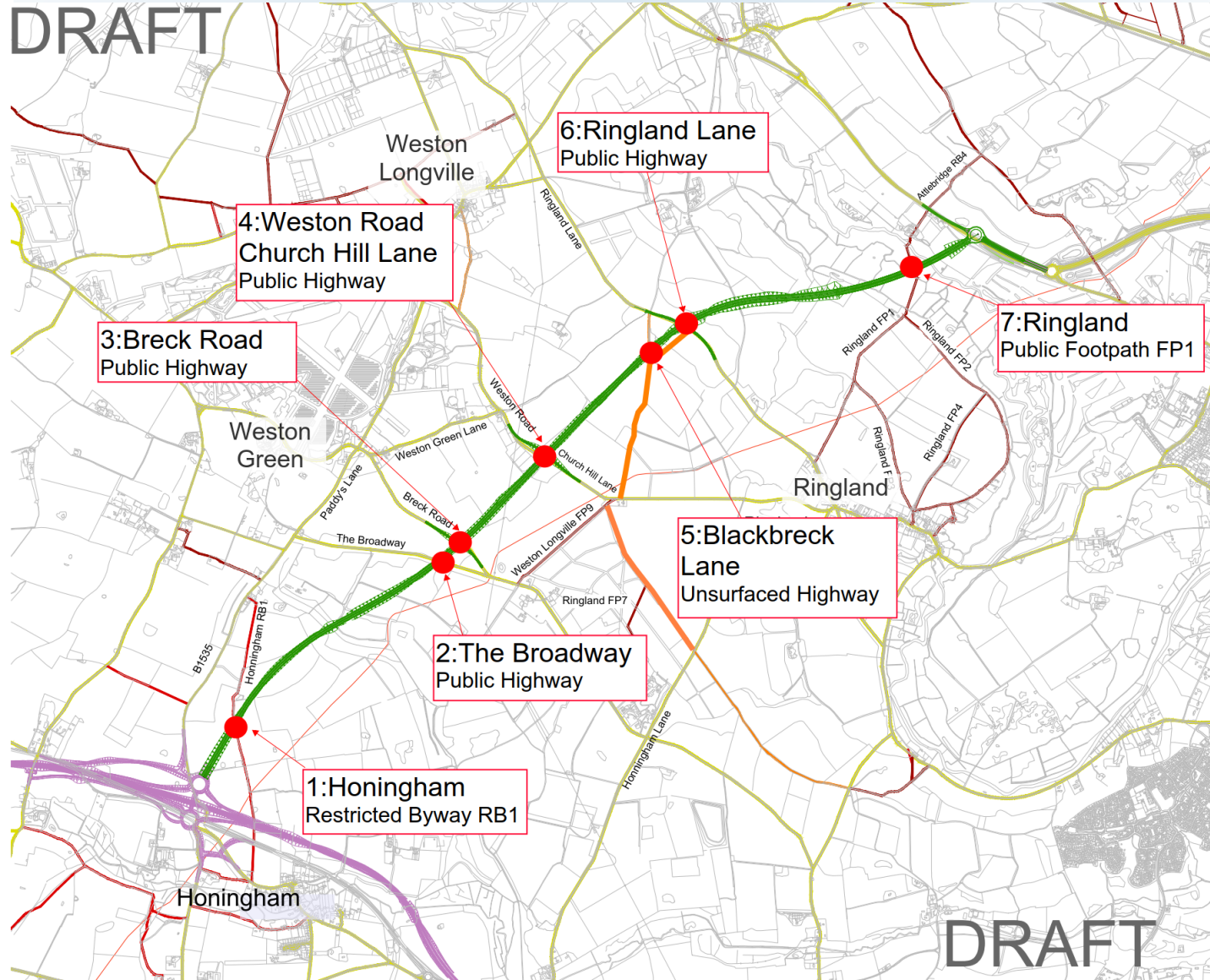


4 Public Highways

1 Restricted Byway

1 Unmade Highway

1 Public Footpath



DRAFT

4

Sustainable transport for NWL

How the routes are used.

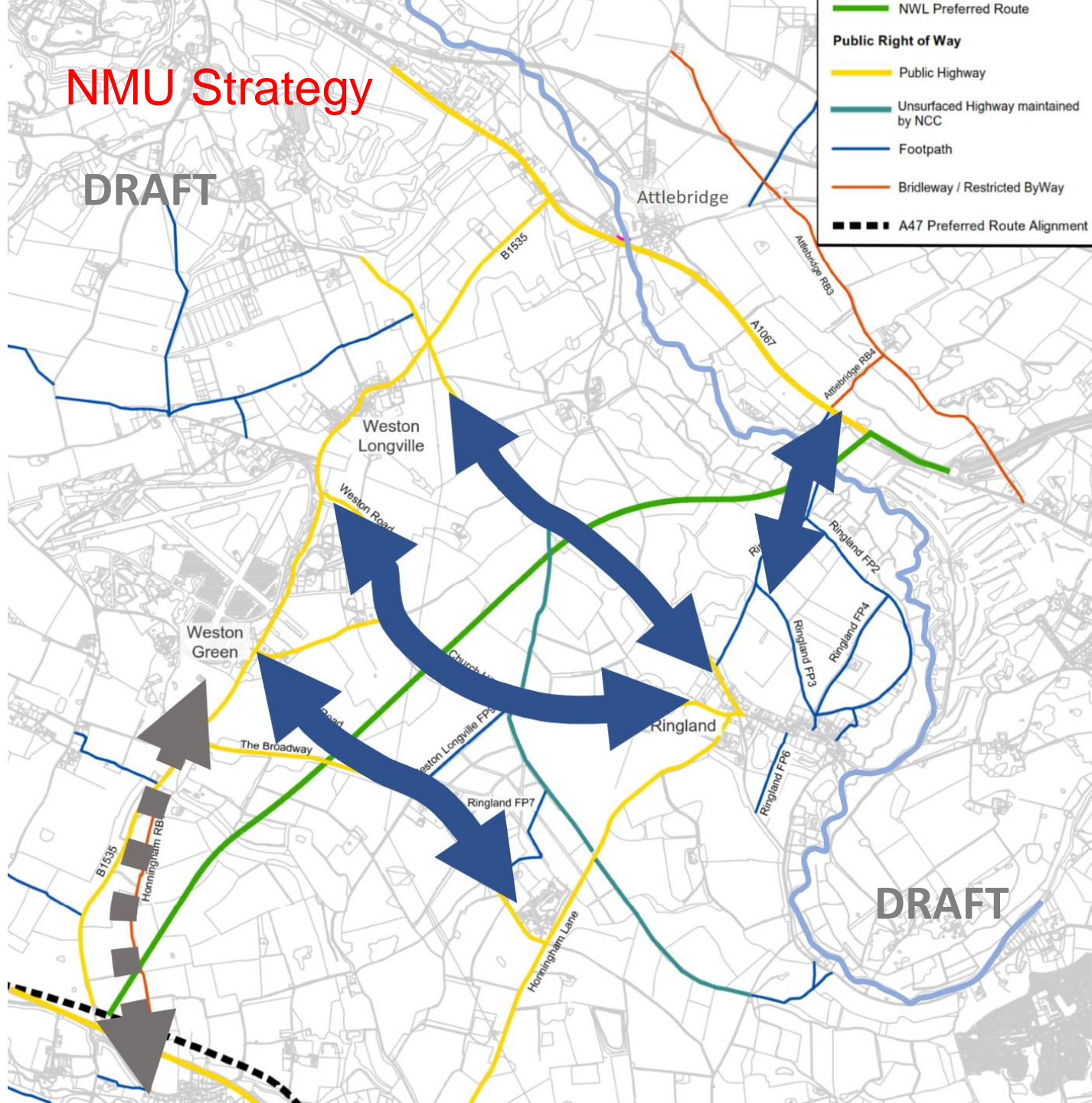
Honingham RB1 severed by A47 with currently very low observed usage

Public Highways used by pedestrians, cyclists, equestrians and motor vehicles

Ringland Footpath crossing River Wensum provides connectivity to routes north of the A1067, but has low observed usage

NMU Strategy

DRAFT



- NWL Preferred Route
- Public Right of Way
- Public Highway
- Unsurfaced Highway maintained by NCC
- Footpath
- Bridleway / Restricted ByWay
- A47 Preferred Route Alignment

DRAFT
















Sustainable transport for NWL

NMU Strategy

Types of Public Rights of Way considered



Public right of way Type	Pedestrians	Equestrians	Cyclists	Non-motorised vehicles	Motorised vehicles
Footpath					
Bridleway					
Restricted byway					
Byway Open to All Traffic (BOAT)					

Sustainable transport for NWL

NMU Strategy

DRAFT

Existing

Public highway



Unsurfaced highway



Public Right of Way



Proposed

Restricted Byway



Surface improvements to existing Unsurfaced Highway



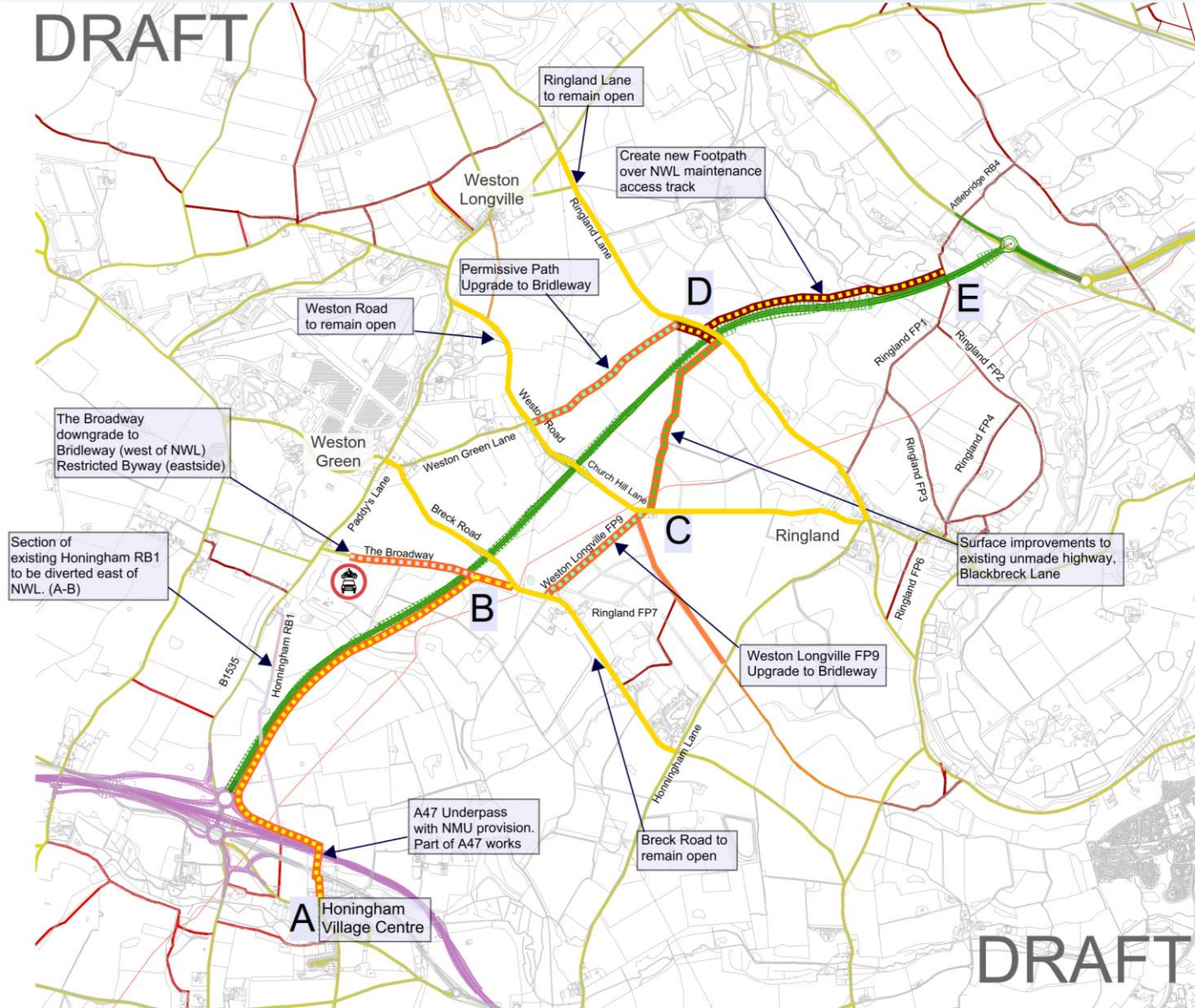
Bridleway



Footpath



Norwich Western Link



DRAFT



Sustainable transport for NWL

As part of the new A47 works, Highways England are providing an underpass north of Honingham to the east of Honingham Restricted Byway

Proposal to divert Honingham RB1 via underpass and continue along east side of NWL to The Broadway. A-B

NMU Strategy: Honingham to The Broadway



Sustainable transport for NWL

The Broadway to be closed to through motorised traffic except for private access.

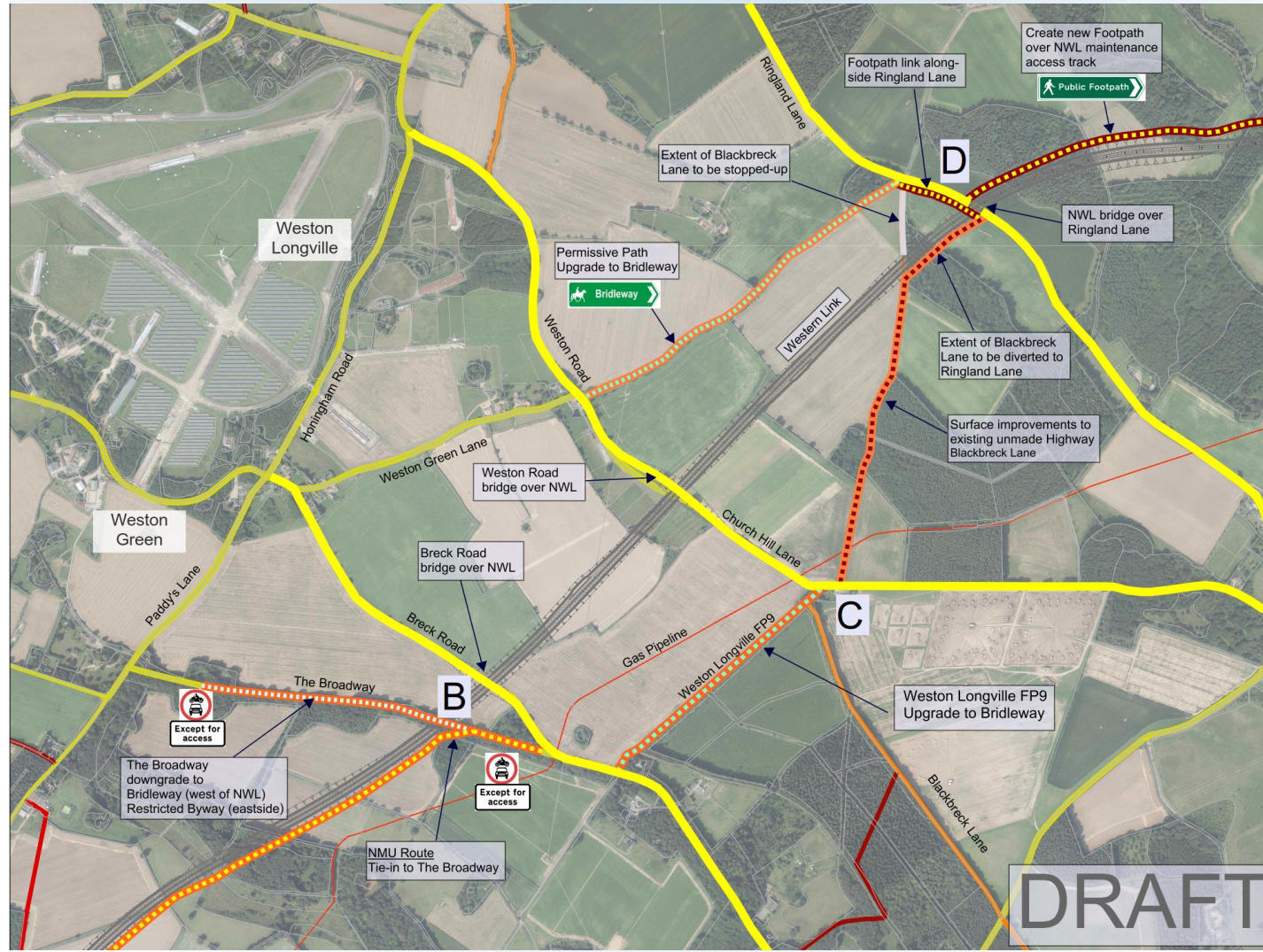
New bridges crossing NWL at:

- The Broadway
- Breck Road.
- Weston Road
- Ringland Lane

Enhancements to existing PRow's, and dedication of new Bridleway over existing permissive route linking Weston Road and Ringland Lane

NMU Strategy: The Broadway to Ringland

Parallel routes enhanced and created to improve connectivity between local communities



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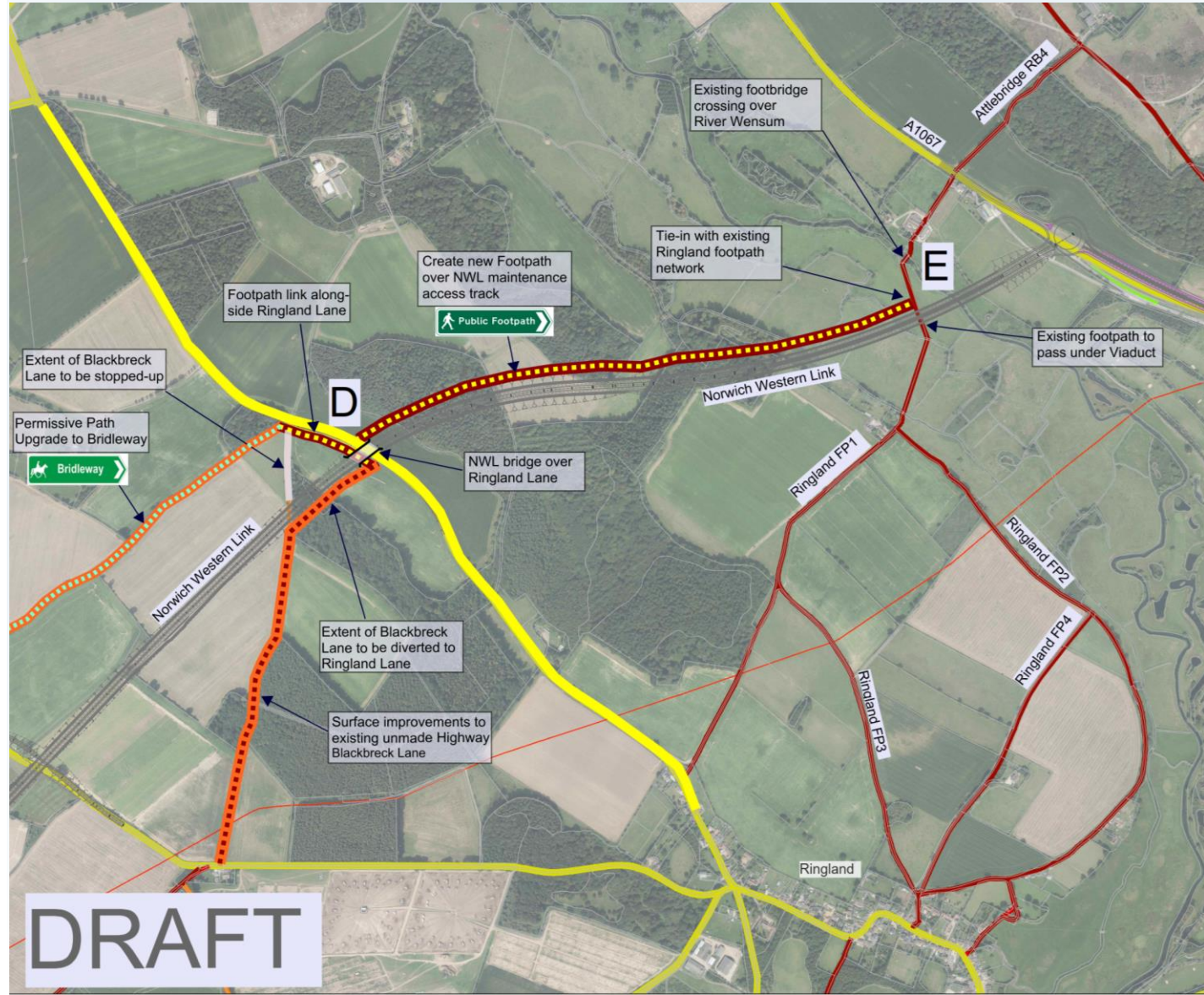
Sustainable transport for NWL

Dedication of a new Public Footpath to north side of NWL utilising proposed maintenance access tracks linking Ringland Lane (D) and Ringland FP1 (E).

Equestrians and cyclists diverted via Ringland Lane.

Existing footpaths within River Wensum valley retained to minimise impact on sensitive ecology.

NMU Strategy: Ringland Lane to Wensum



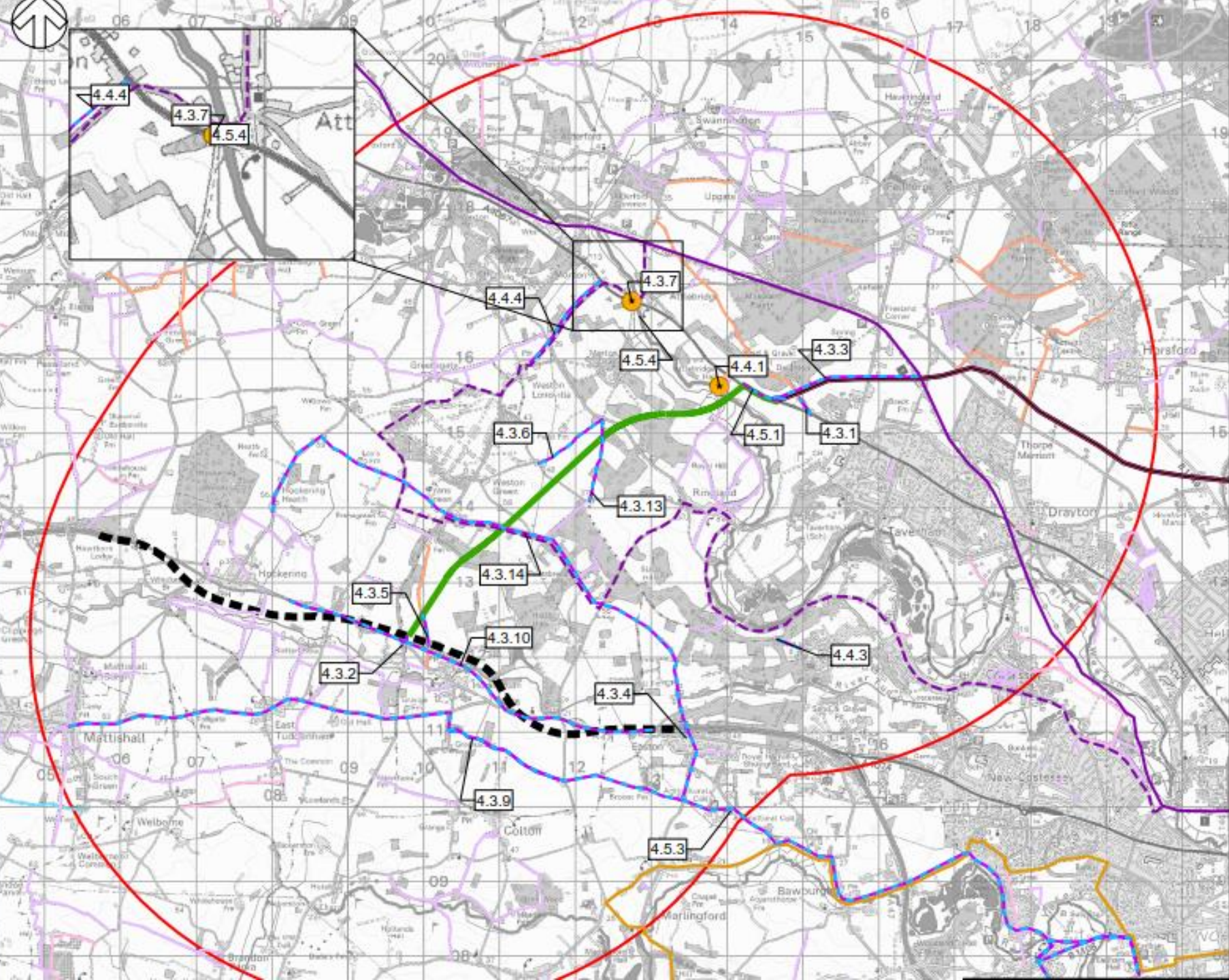
NMU Strategy – Wayfinding Strategy

- Under Development in Accordance with Sustrans guidance



Recommended effective widths of shared use routes

	Shared use	Separated use
Absolute minimum	2.5m	4.5m
Desirable minimum	3.0m	5.0m



Next Steps:

Preparation of the Outline Business Case	Tender specification work to procure a contractor	Design development for the preferred route	Traffic modelling
Geotechnical site investigation	Walking, Cycling, Horse Riding Assessment	Ongoing engagement with relevant groups and organisations e.g. Parish Councils, Public Transport Operators	Surveys including ecology (fish, macrophytes, reptiles, bats, badgers etc), and topographical
Non-Motorised User Strategy	Bus Strategy	Sustainable Transport Strategy	Signage Strategy
EIA Scoping & Transport Assessment Scoping	Public Consultations	Updated Traffic Model for OBC	Air Quality and Noise Assessments

5

NWL scheme programme

Milestone	Current estimate
Regional priority status agreement – Transport East meeting	July 2019
Preferred route established – decision at July Cabinet	15 th July 2019
Strategic Outline Business Case (SOBC) together with the Regional Evidence Base (REB) submission to DfT	July 2019
Informal Public Consultation	Spring 2020
Outline Business Case (OBC) submission	Autumn 2020
Design and Build Contractor appointment	Autumn 2020
Formal Pre-application Public Consultation	Late 2020
Planning Application submission	Spring 2021
Full Business Case (FBC) submission	Summer 2022
Enabling Works and Mobilisation for Construction	End of 2022
Road open	2025

6

Comments and Discussion

6

Thank you for
attending

wsp

August 14, 2020



Norwich Western Link

Stakeholder Briefing 3 – 14th August 2020

NWL Progress Update

- Workshops in October 2019 and January 2020
- Walking, Cycling & Horse Riding Assessment Report (WCHAR) baseline review completed in accordance with GG142 Guidance
- Consulted with Local Liaison Group of Parish Reps on local roads that cross the scheme
- Developed Non-Motorised User (NMU) strategy in the immediate vicinity of the scheme to be delivered by main contractor
- Referring to Design Guidance CD143 and CD142 for the technical design aspects of NMU and cycling infrastructure
- Published OJEU notices Mid-June 2020 to commence tendering process – currently in pre-qualification stage. The tender process includes the NMU Strategy
- Refined the potential opportunities for consideration as part of Wider Sustainable Transport Strategy (walking, cycling & bus)
- Working with Highways England to achieve joined up approach
- LTN 1/20 issued as new cycle infrastructure design guidance in July 2020 – we are currently reviewing this for future inclusion

Local Access Public Consultation

- Our public consultation is underway on local access proposals from Monday 27 July to Sunday 20 September 2020.
- The consultation focuses on:
 - Roads that cross the NWL
 - Changes to existing Public Rights of Way
 - Creation of new Public Rights of Way
 - Options for Ringland Lane
 - Proposals for Weston Road / Church Hill Lane
 - Proposals for Breck Road
 - Access restrictions for motor vehicles
 - Sustainable transport measures across the wider area
 - Bus Strategy Options
 - Concept design for Green Bridges



Local Access Consultation



Monday 27 July
to Sunday 20
September 2020
www.norfolk.gov.uk/nwl



Norfolk County Council

IN A TRAN
communication for all

If you need this brochure in large print, audio, Braille, alternative format or in a different language please email norwichwesternlink@norfolk.gov.uk or telephone 0344 8008020 and we will do our best to help.

What will be in the next consultation?



The design of the viaduct over the River Wensum

The route of the Norwich Western Link includes a 670 metre-long viaduct which will be designed and constructed so as to not affect the integrity of the River Wensum Special Area of Conservation. Due to the specialist design and construction methods required, the contractor will be responsible for developing these details following their appointment.

Traffic mitigation



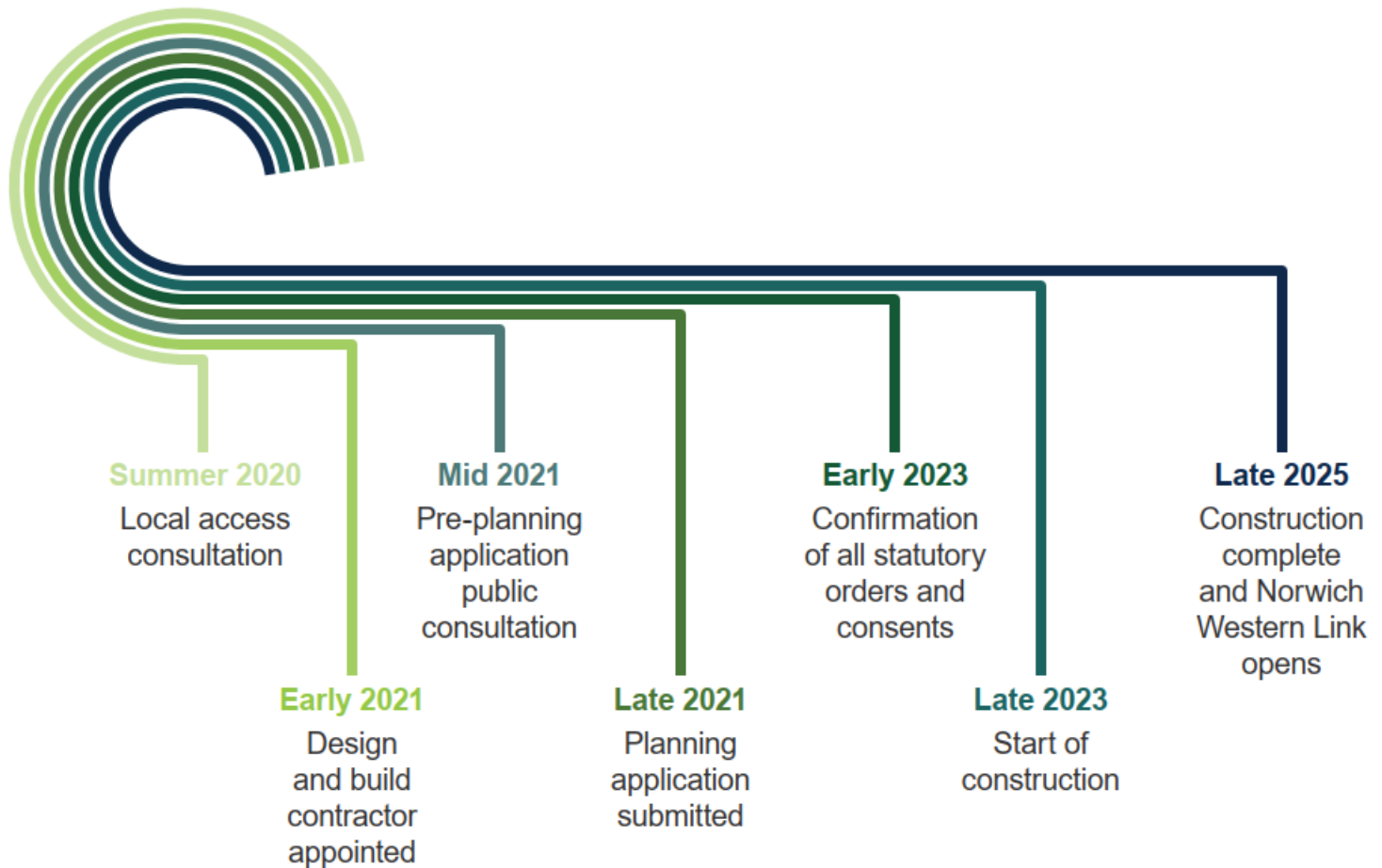
The Norwich Western Link will reduce traffic congestion and rat-running on many local roads by creating a higher quality connection between the A47 and Broadland Northway. However all likely changes to how traffic will use the road network will need to be considered and we will also determine whether any traffic management measures are needed. We use traffic modelling to predict how traffic flows and movements are likely to alter as a result of the Norwich Western Link and other factors, such as dualling of the A47 and population growth. We're currently updating our traffic model to take account of new data and once complete, we'll use this to provide more details of the final design of the scheme and of any wider traffic mitigation measures.

Environmental mitigation



We are committed to building the Norwich Western Link in an environmentally-responsible way. Finding ways to limit the road's impact on wildlife, the landscape and local residents is a priority, and we will carry out an environmental impact assessment ahead of submitting the planning application which will inform what mitigation measures are needed and would be most effective. However current proposals for wildlife crossings along the Norwich Western Link are shown on the route map in these consultation materials.

Public Consultation - Timeline



NWL Scheme Objectives



Support sustainable economic growth



Improve the quality of life for local communities



Promote an improved environment



Improve strategic connectivity with the national road network



Improve connectivity and journey times on key routes in Greater Norwich



Encourage and support walking, cycling and public transport use



Reduce the impacts of traffic on people and places within the western area of Greater Norwich



Protect the natural and built environment, including the integrity of the River Wensum Special Area of Conservation



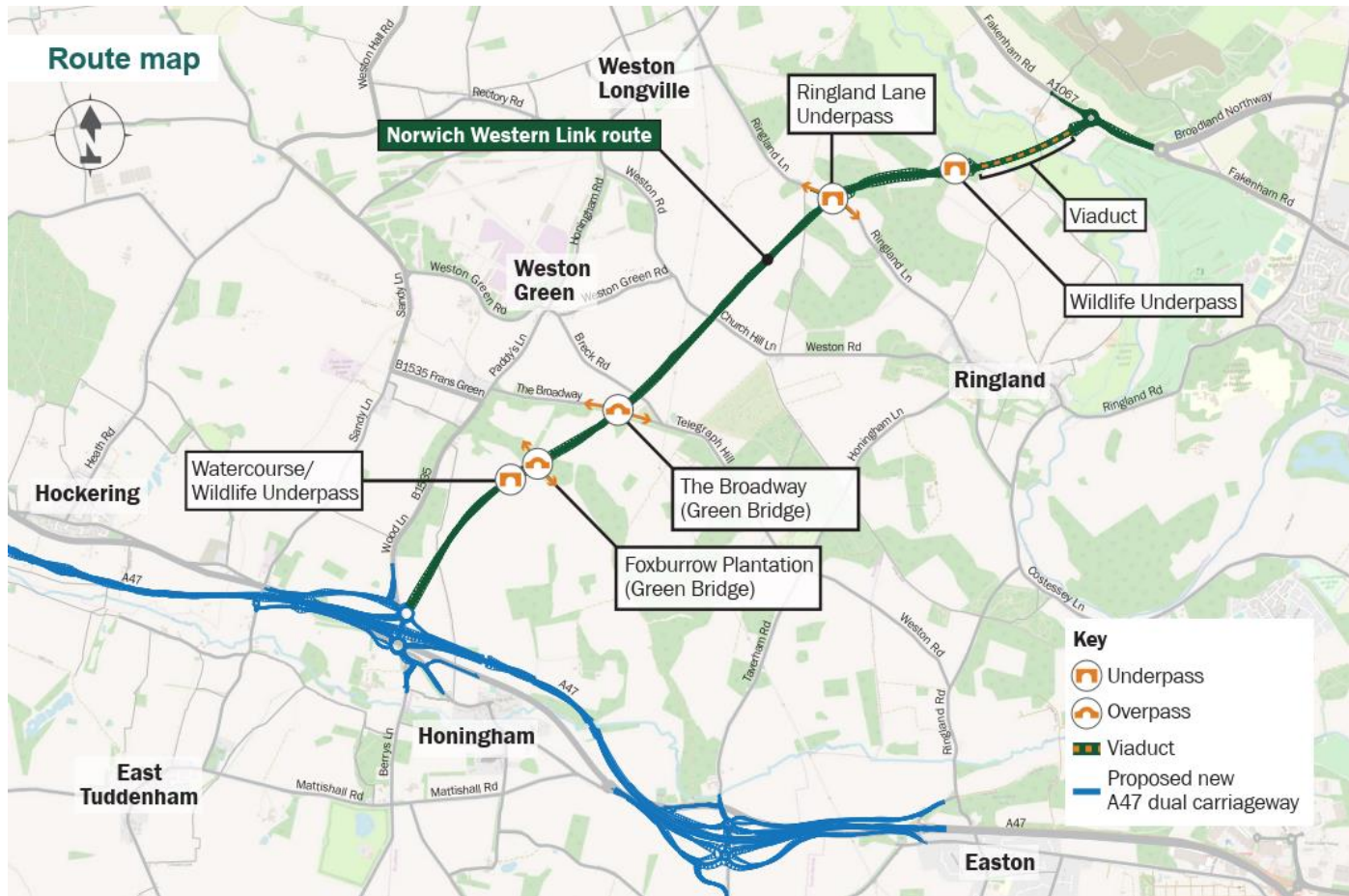
Improve safety on and near the road network, especially for pedestrians and cyclists



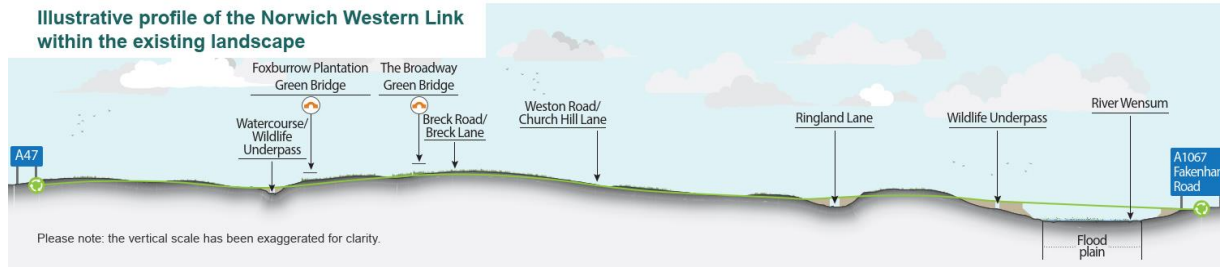
Improve accessibility to key sites in Greater Norwich

Proposals for Local Roads that cross the Norwich Western Link

7



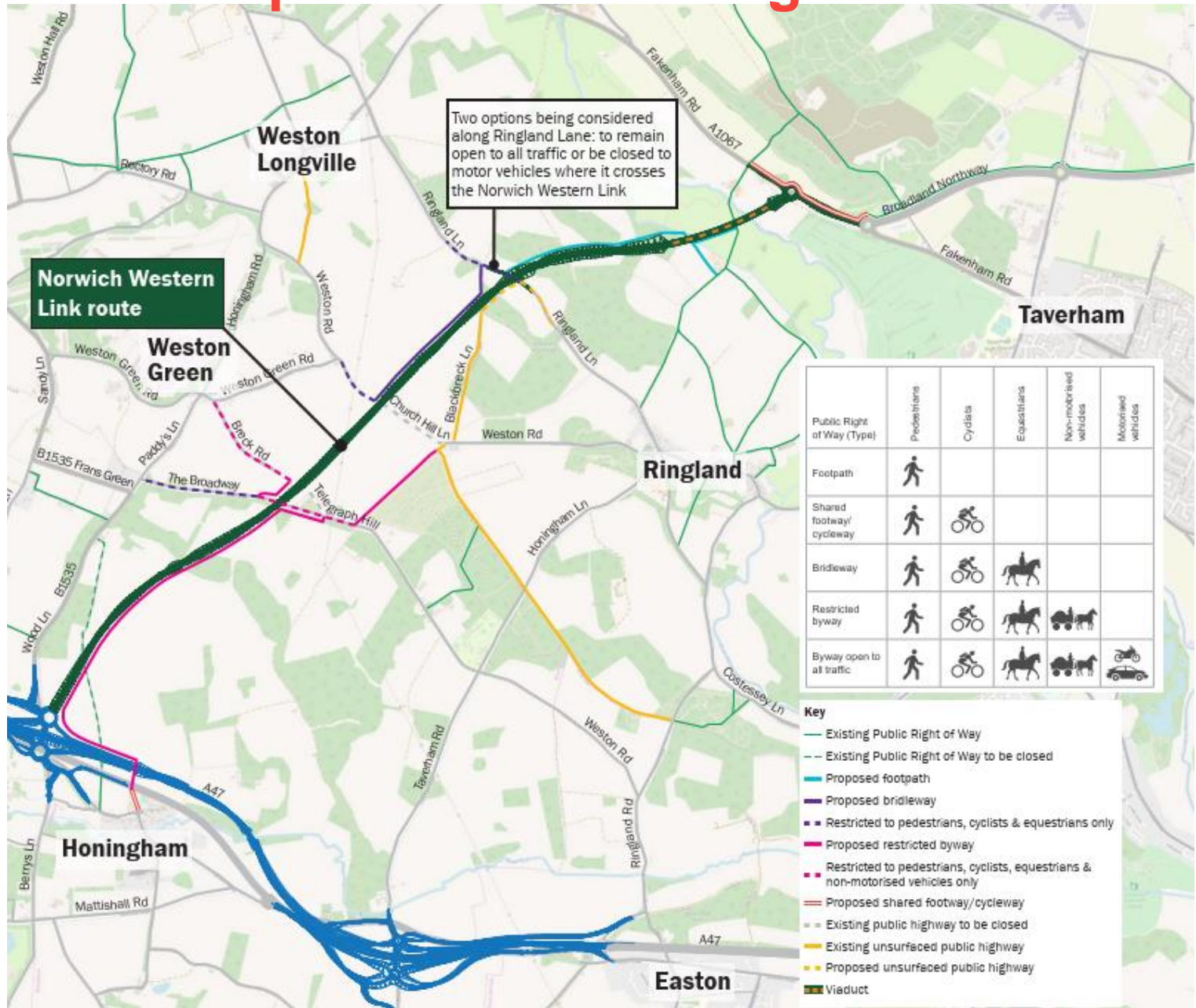
Illustrative profile of the Norwich Western Link within the existing landscape



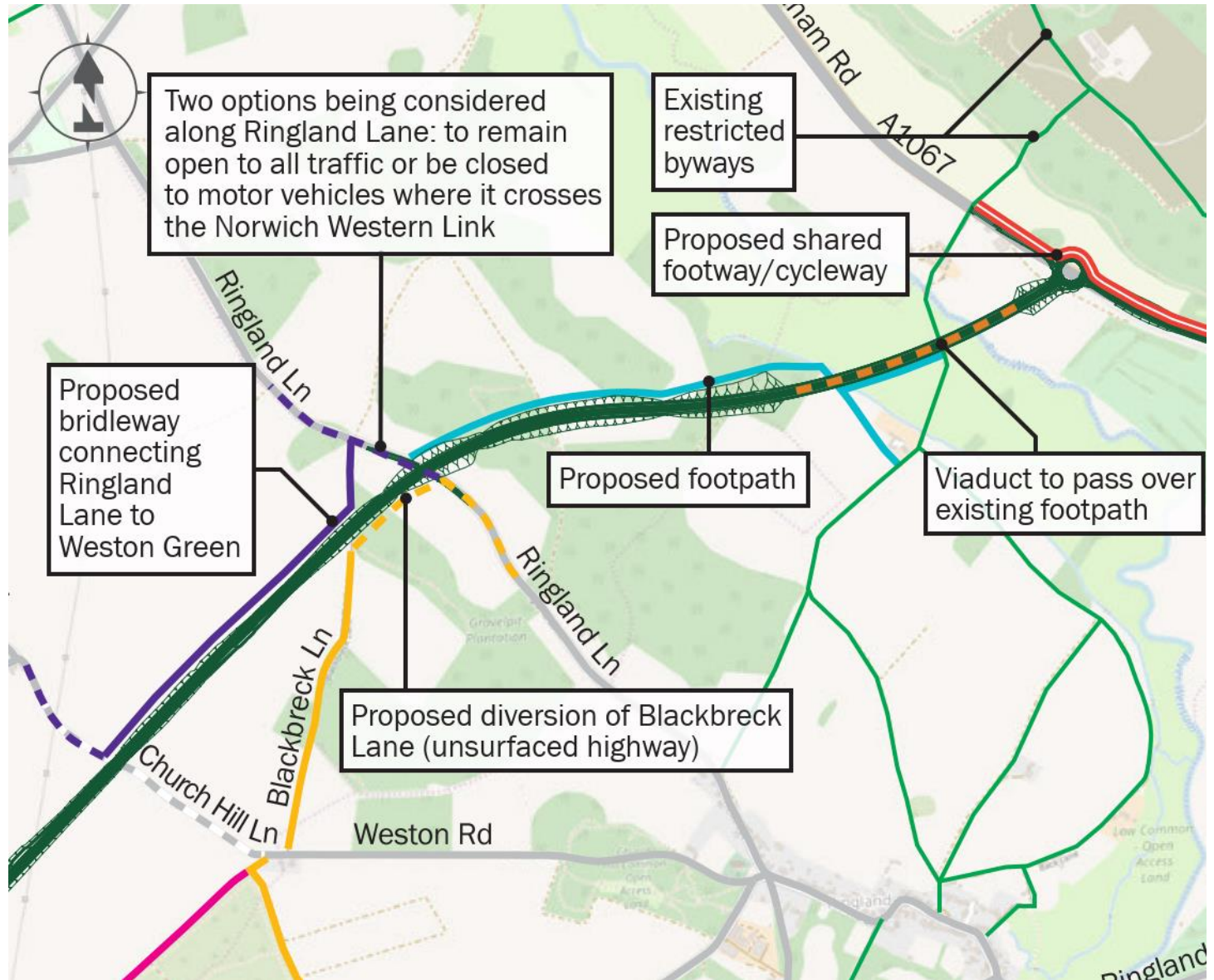
Feedback from Stakeholder Workshops

- Questionnaire Survey Feedback
 - Blackbreck Lane, Ringland Lane and The Broadway were highlighted as being the most well used, especially for walking
- Key themes from Stakeholders and Parishes
 - Retain private access routes
 - Extend existing rights of way network
 - Reduce vehicle movement on roads crossing NWL
 - Concerns expressed over motorcycles using bridleways and restricted byways
 - A full NMU route along the NWL may not be well utilised and so would prefer enhancement of existing routes for a better experience
 - Agreed at previous workshop there would be no upgrade to the existing footpath crossing the River Wensum
 - The A47 creates severance issues and people do not attempt to cross it

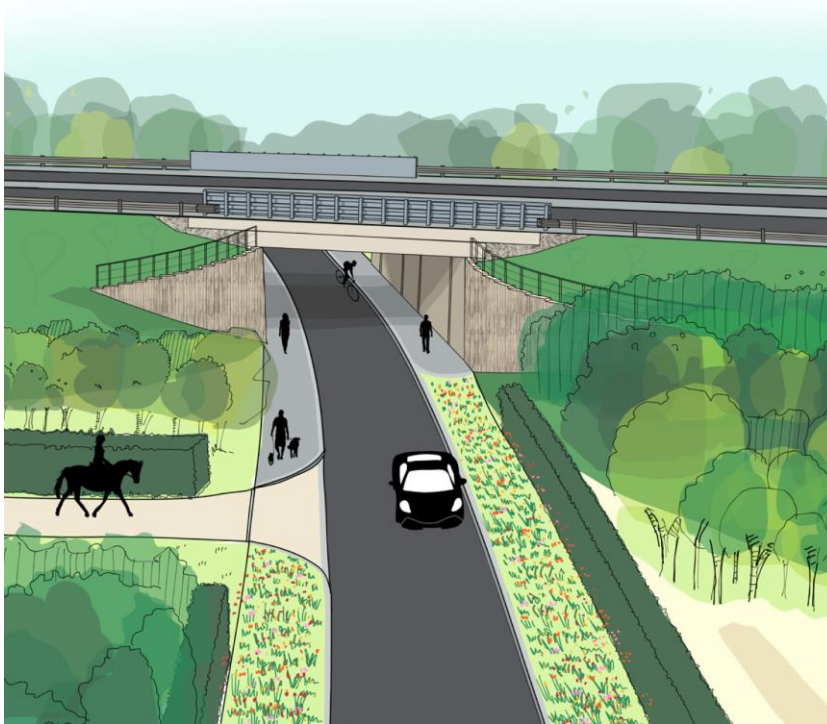
Changes to Public Rights of Way and expansion of existing network



Proposals Close to Ringland Lane

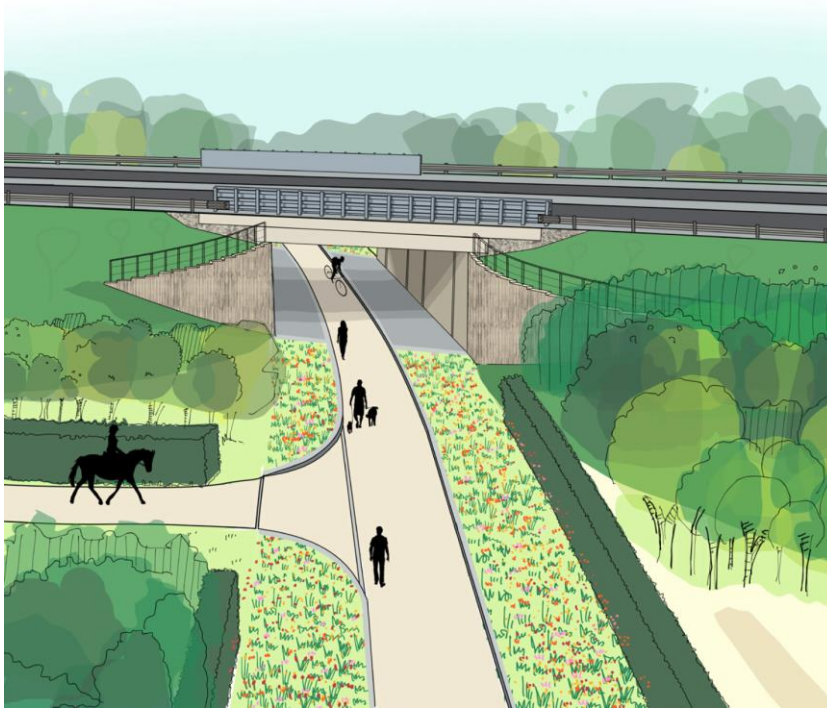


Ringland Lane Option 1



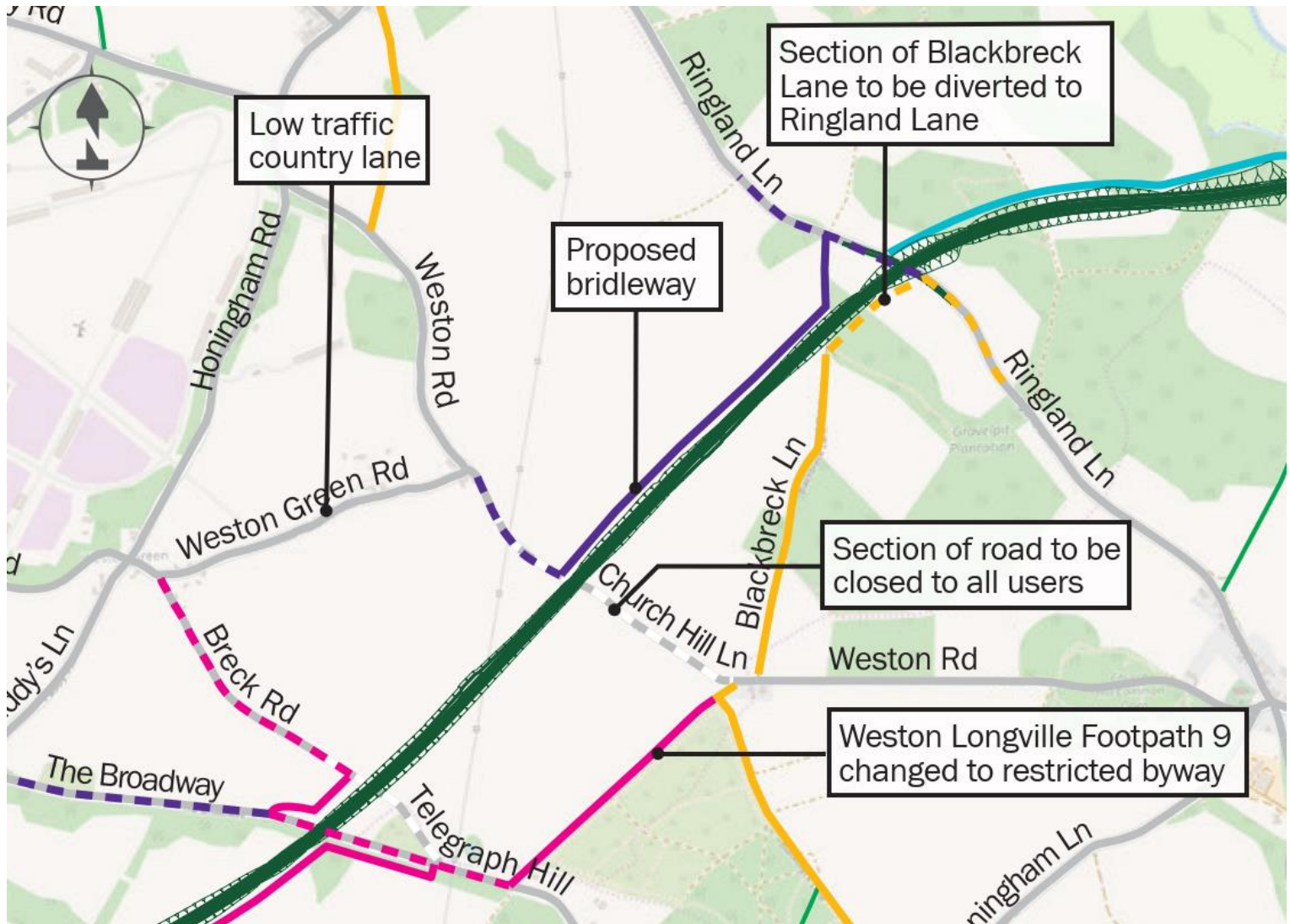
- Kept open to all traffic, including motor vehicles (as it currently is), with footways installed to improve pedestrian access and connectivity with the wider Public Rights of Way network.

Ringland Lane Option 2

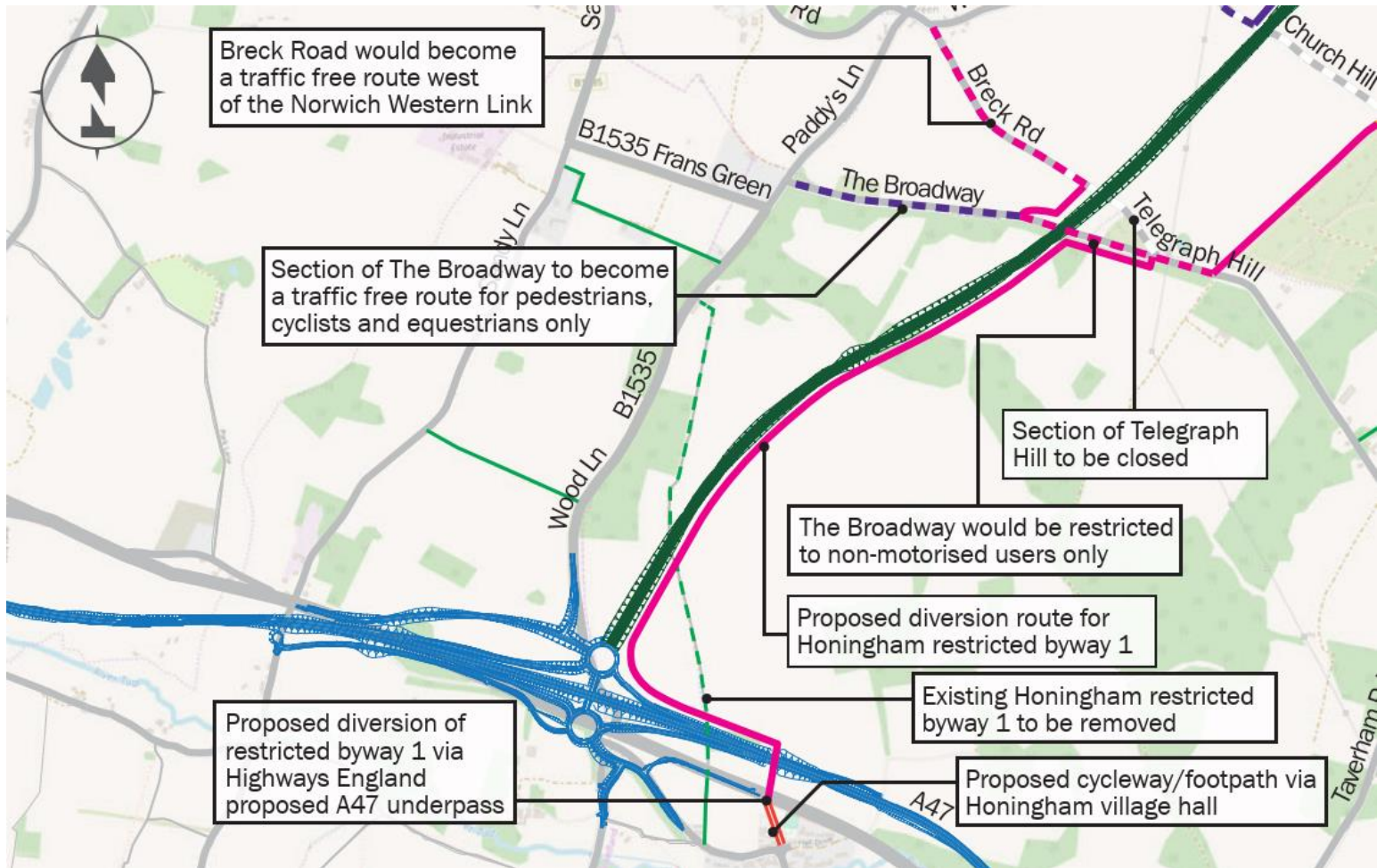


- Restricted to walkers, cyclists and horse riders at the point where the road crosses the NWL.
- Ringland Lane would become a no-through road to motorised traffic except for vehicle access to adjacent land and property

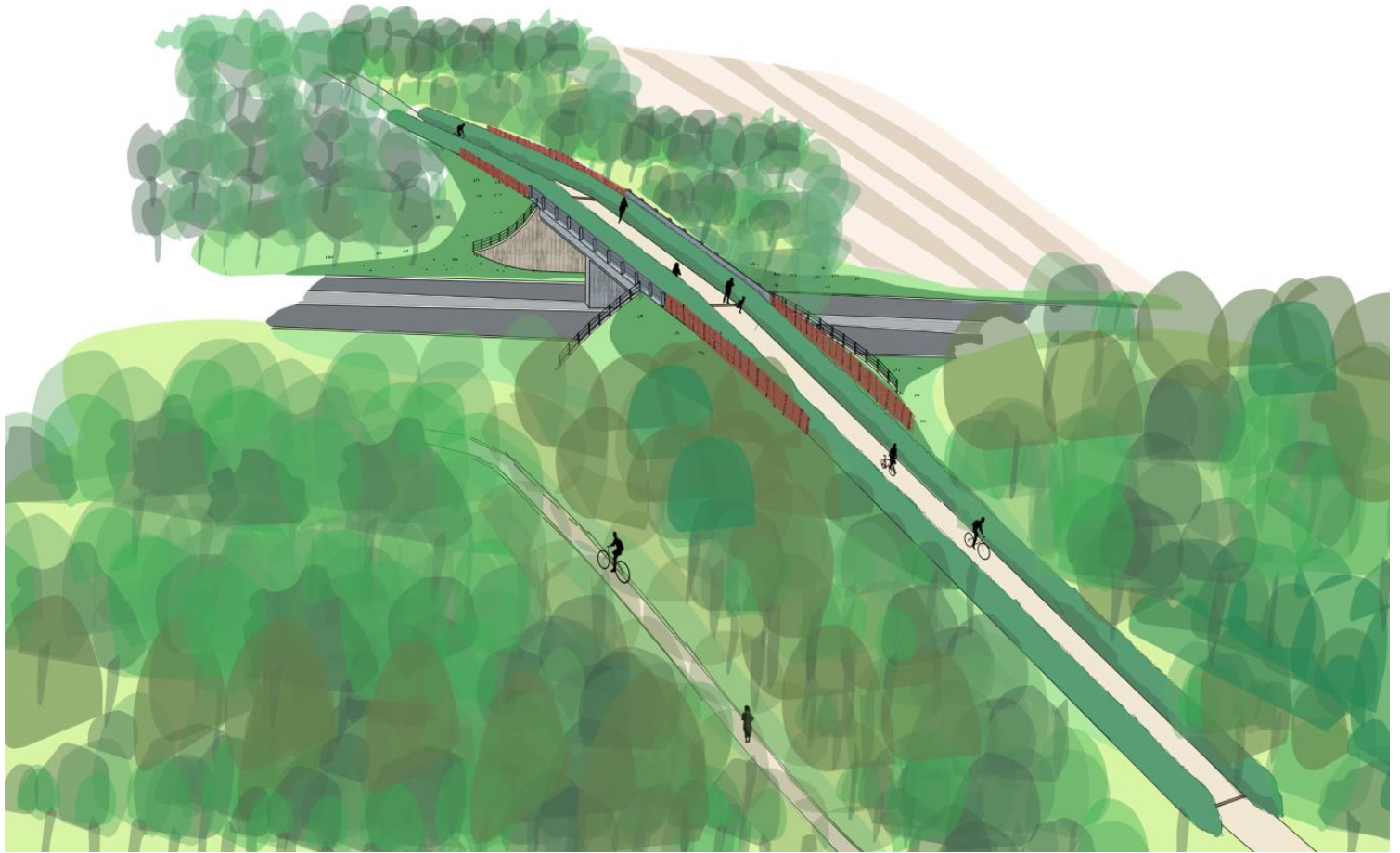
Proposals around Weston Road/Church Hill Lane



Proposals close to Breck Road and The Broadway



Concept Design for Green Bridges



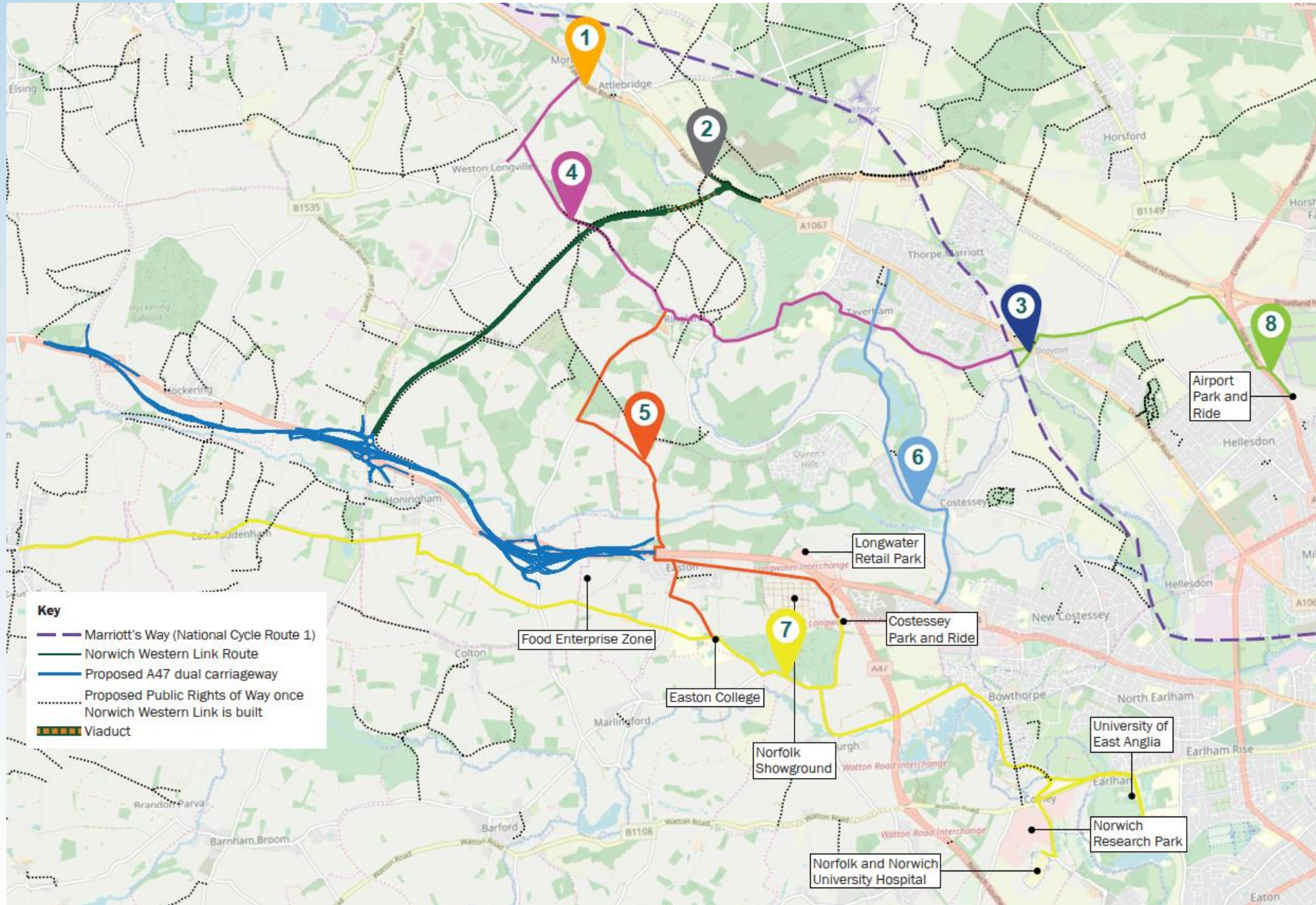
15

Wider Sustainable Transport Measures

Previous Stakeholder Feedback Included:

- Improved cycling routes, roads closed to through traffic and improved pedestrian routes were highlighted as the most important improvements to be packaged with the NWL
- The main barriers to sustainable travel were noted to be the standard and safety of routes and the time taken to undertake non-motorised journeys (in comparison with travel by car)
- East-west to Norwich via Ringland and Weston Longville and Mattishall to NNUH/UEA were identified as routes that users would like to use more frequently on foot or by bike plus improved connectivity to Queen's Hills and Marriott's Way.
- Safer crossings are needed over busy roads, especially the A1067 for Weston Longville

Wider Sustainable transport measures

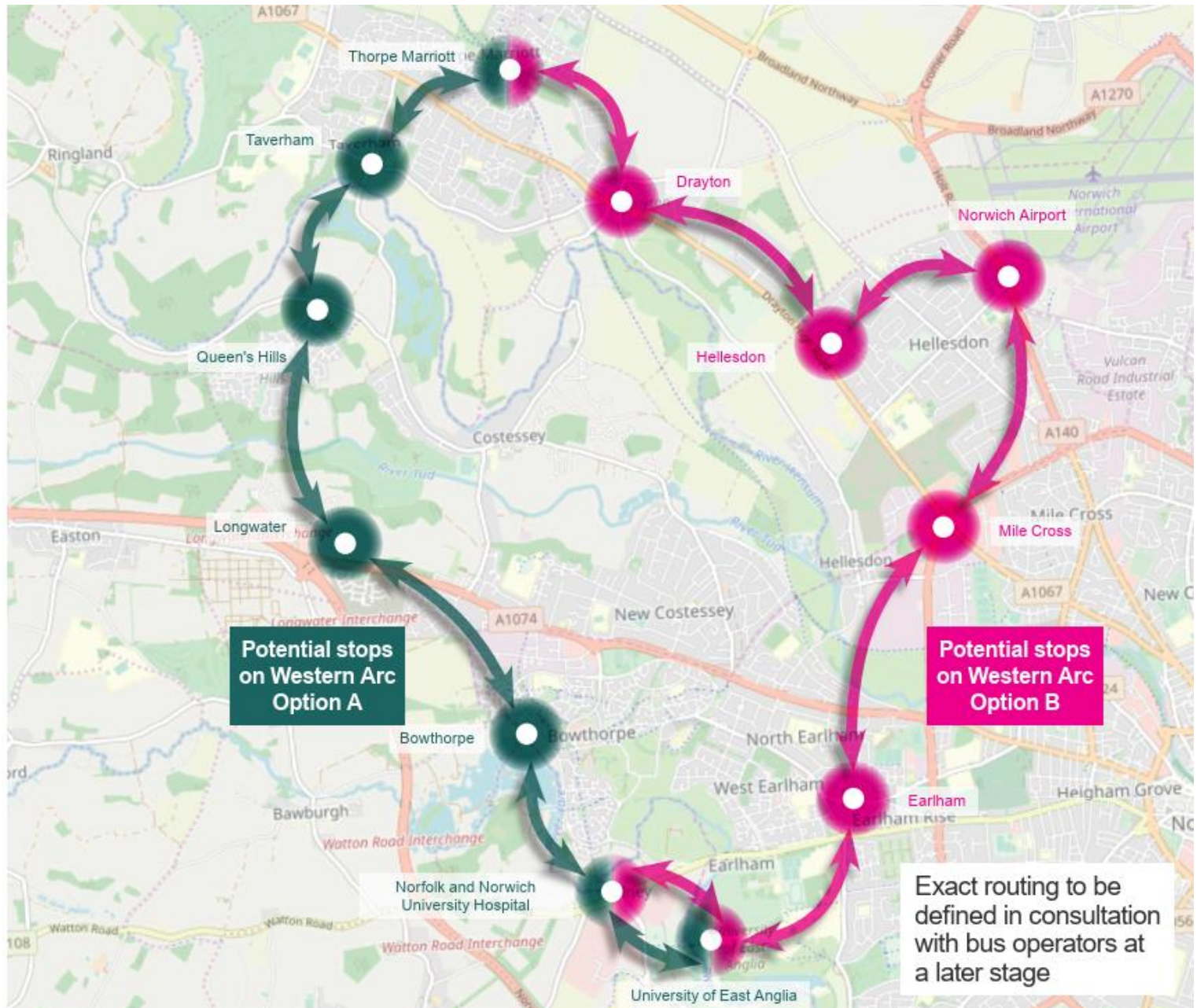


Bus Strategy

Previous Stakeholder Feedback Indicated a desire for:

- Improved and more frequent bus services,
- additional bus stops,
- faster and more reliable journeys,
- buses to have facilities to carry bicycles
- routes connecting residential areas to key facilities on the western edge of Norwich
- Bus operators input to initial ideas for a possible 'western loop' service – operator feedback suggests
 - Service would ideally need to be 60 minute timetable or less
 - Full Loop likely to require more than 60 minutes
 - Needs to have good residential catchment for viability
 - Could serve key destinations like NNUH, UEA and Airport
 - Previous three-year trial of an orbital loop around Norwich showed poor uptake
 - two options for a sub-loop (Western Arc) services are now being considered

Bus Strategy



Q&A

Any questions?

Thank you for attending

- Please submit any feedback via the online questionnaire:

www.norfolk.gov.uk/nwl

- Or email us during the consultation period:

norwichwesternlink@norfolk.gov.uk

March 2, 2021



**Norwich Western Link
Sustainable Transport Workshop 4
2 March 2021**



Norfolk County Council

Agenda

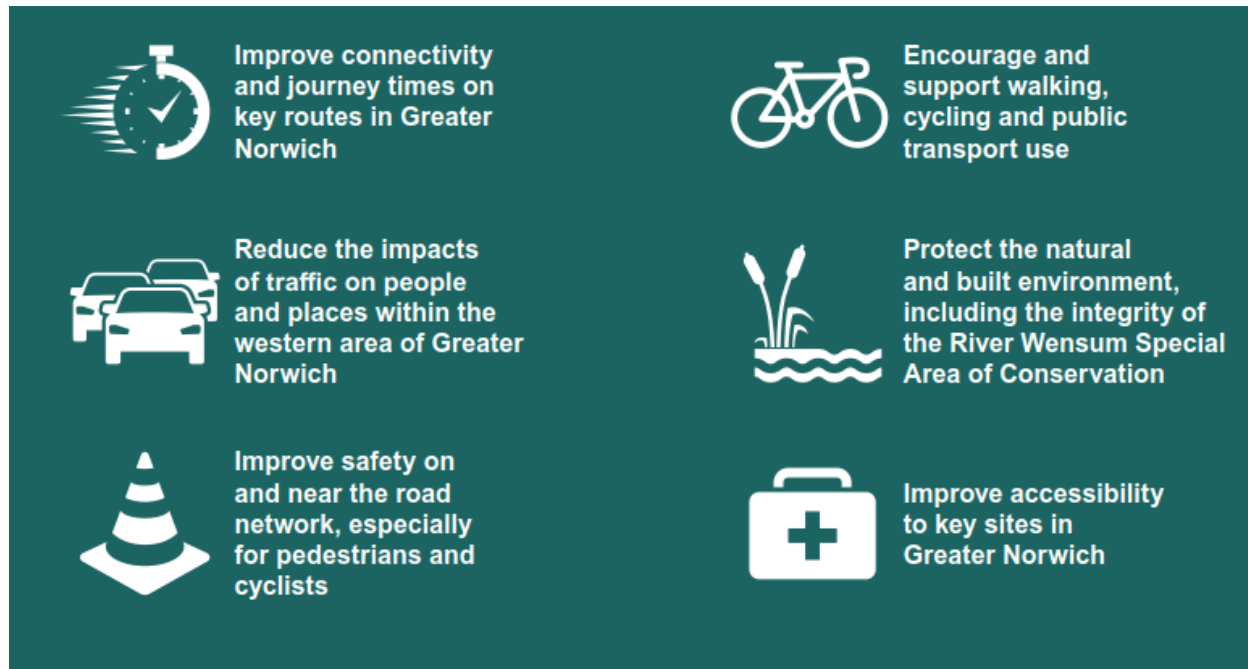
- 1.0 Sustainable Transport Update
- 2.0 New Guidance Update
- 3.0 Cycle Friendly Route Options
- 4.0 Non-Motorised Users & Side Roads
- 5.0 Bus Strategy
- 6.0 Next Steps

2

1.0 Sustainable Transport Update

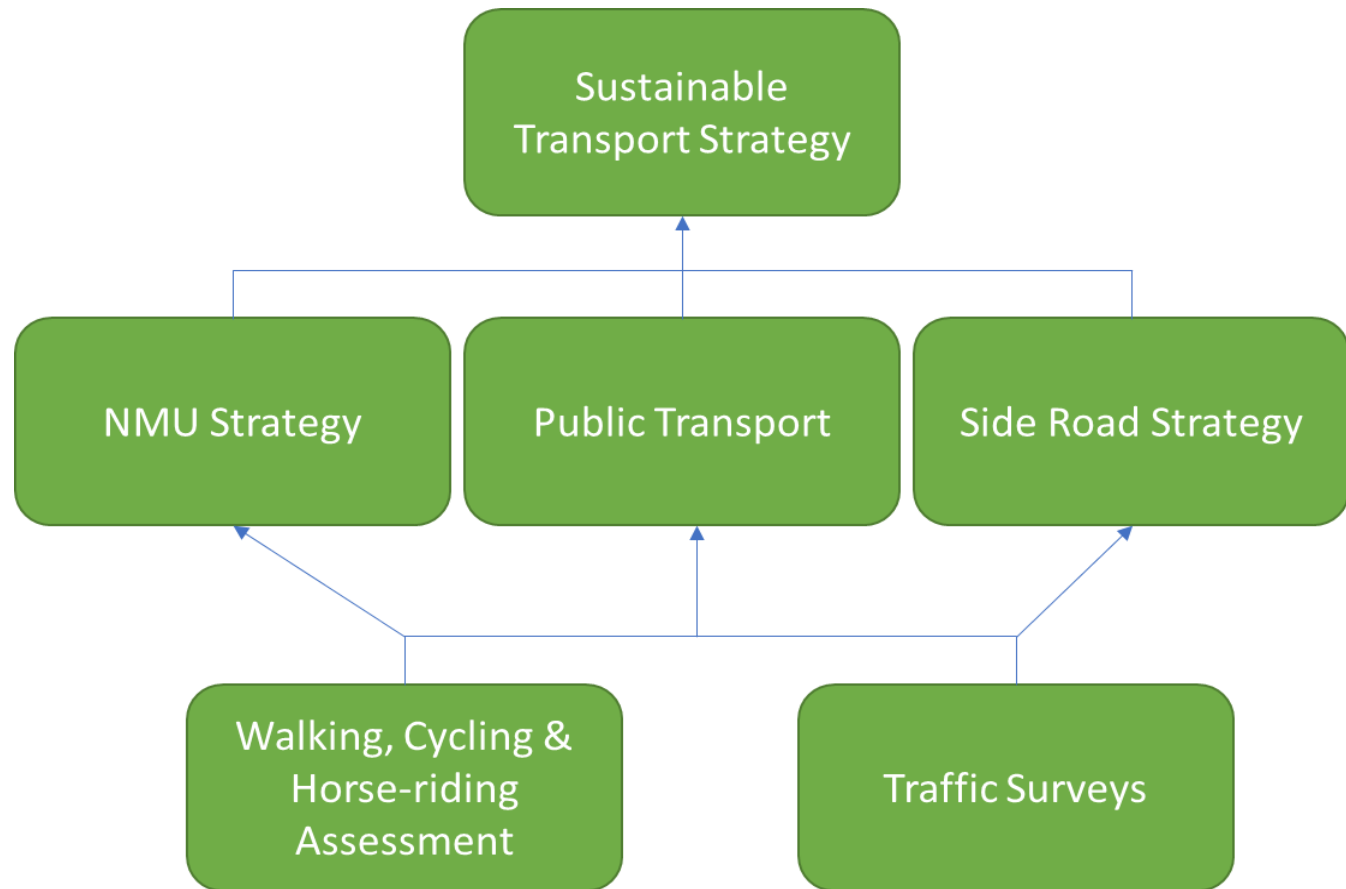
- A Sustainable Transport Strategy has been prepared to accompany the OBC submission to DFT.
- This seeks to enhance the business case with Active Travel Benefits by increasing opportunities for non-car travel.
- The proposals sit within the context of Transport for Norwich/Transforming Cities projects, with the aim of creating a combined network of routes which offer a joined up strategy.
- The STS helps the NWL scheme meet the Strategic Objectives:

3



1.1 Sustainable Transport Update

- The Sustainable Transport Strategy covers a variety of elements which complement the main highway scheme:



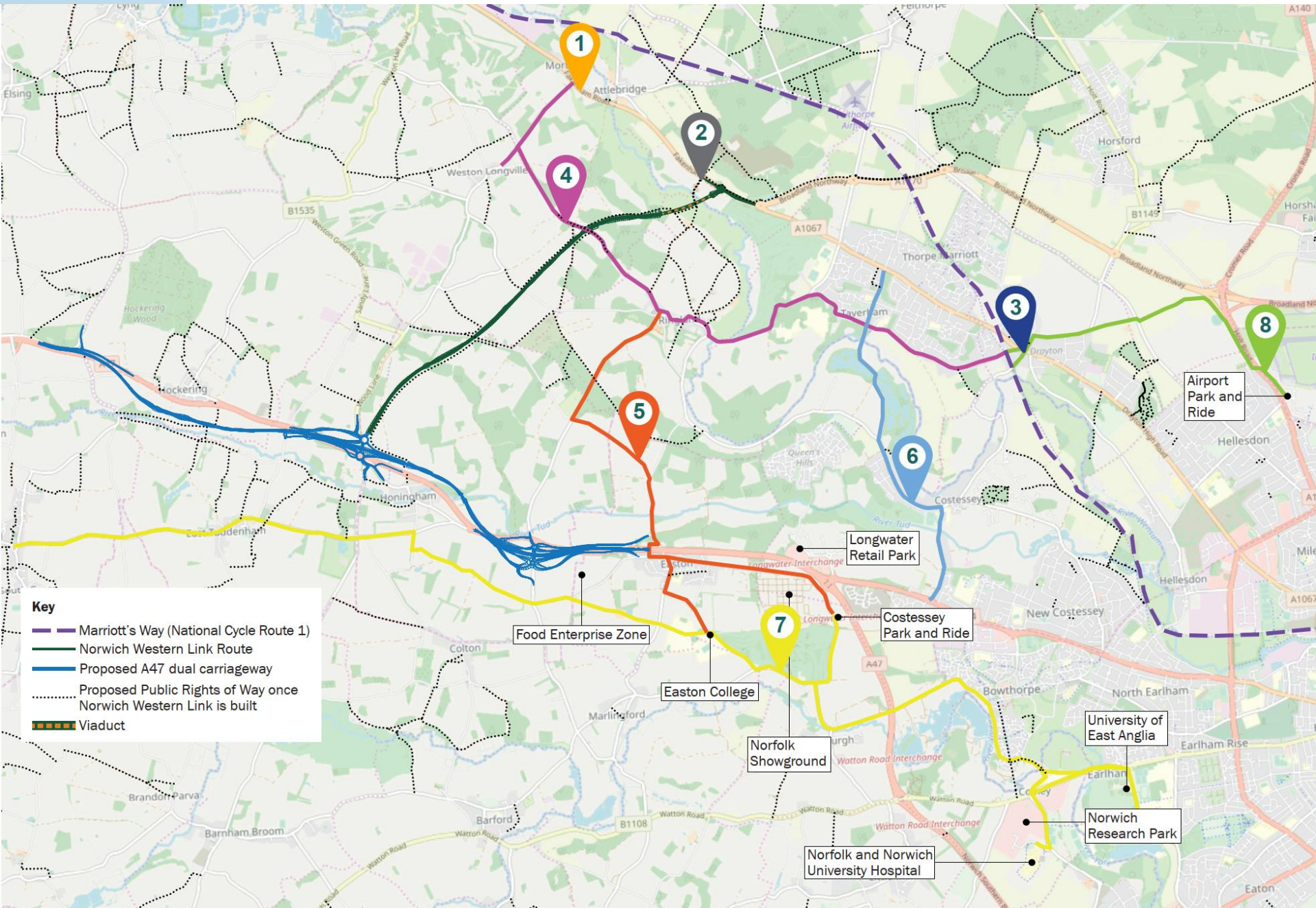
2.0 New Transport Guidance

- Local Transport Note LTN 1/20 (2020)
 - Supports the delivery of high-quality cycle infrastructure and reflects current good practice, standards and requirements.
 - Sets clearer guidance on how to design for cycling in different types of conditions in urban areas and also offers direction on types of intervention suitable for different thresholds of speed and volumes of traffic.
 - The majority of routes close to the NWL are rural lanes through small hamlets and villages, many of which currently carry more traffic than suitable for the scale of existing highway infrastructure and constrained network conditions.
 - With the NWL in place, traffic relief will be provided to local villages with traffic flows on many links reduced to below 2,000-2,500 vehicles per day AADT in the opening year of 2025.
 - Existing infrastructure can be re-purposed to prioritise cycling and walking without building extensive extra new links (albeit with speed management measures required to control speeds to low levels).

2.1 New Transport Guidance

- Gear Change (2020)
 - Gear Change responds to the climate change agenda emphasising the environmental benefits of encouraging and supporting sustainable travel, with a target to double cycle and increase walking.
 - In accordance with the Gear Change policy, the NWL is supported by a Sustainable Transport Strategy that seeks to improve the existing walking and cycling facilities in the surrounding area.
 - Where possible, existing PROW routes will be diverted, where they are severed by the scheme, with new green bridges providing grade-separated crossings and an improved and extended Public Rights of Way network around the link.
 - The wider measures offer improved priority for cycling on routes predicted to have low traffic with the highway scheme in place.
 - Safer crossing facilities on A1067 to provide onward connectivity with the Marriott's Way strategic cycle corridor which takes Non-Motorised Users into central Norwich.

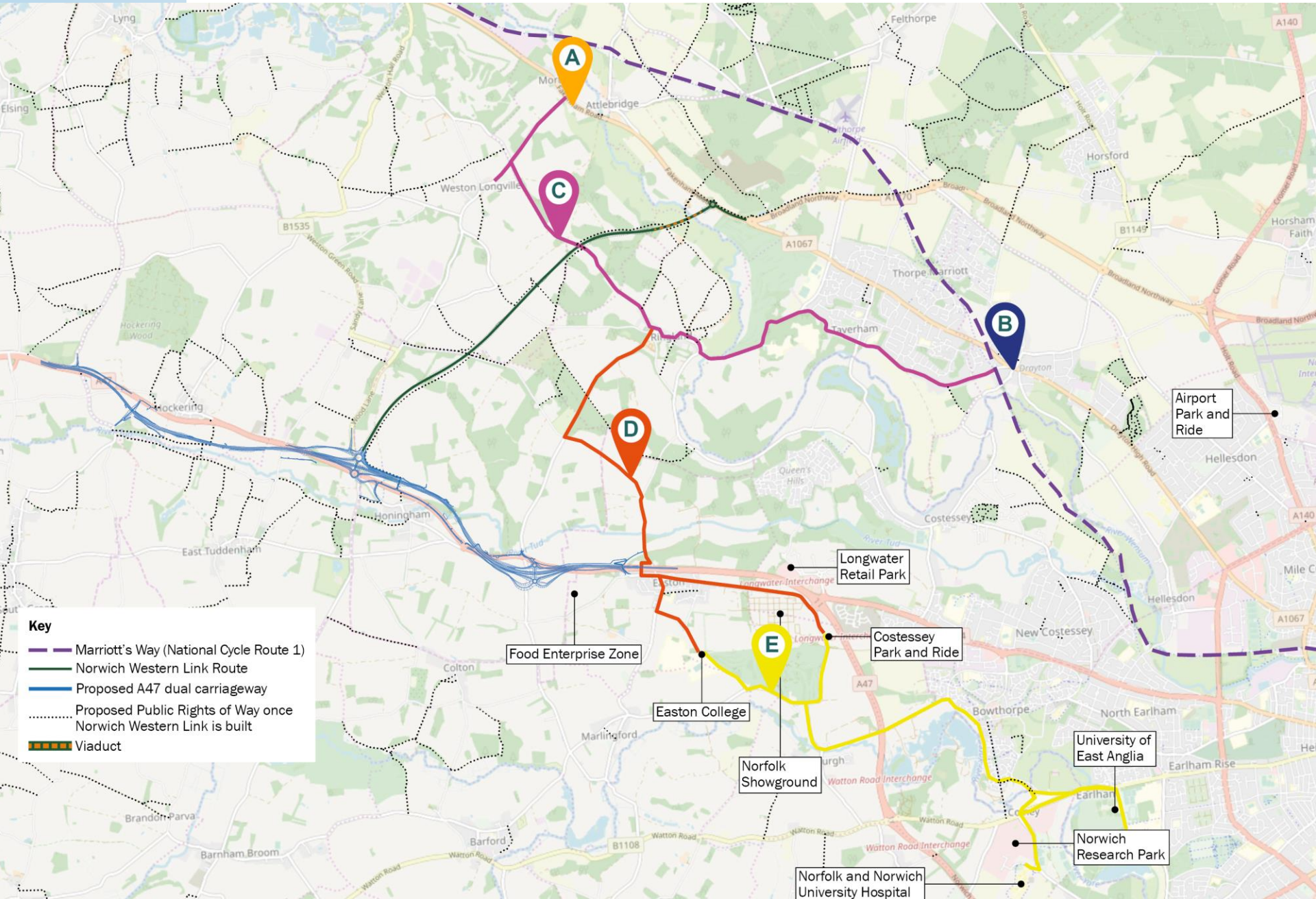
3.0 Sustainable transport measure options July 2020



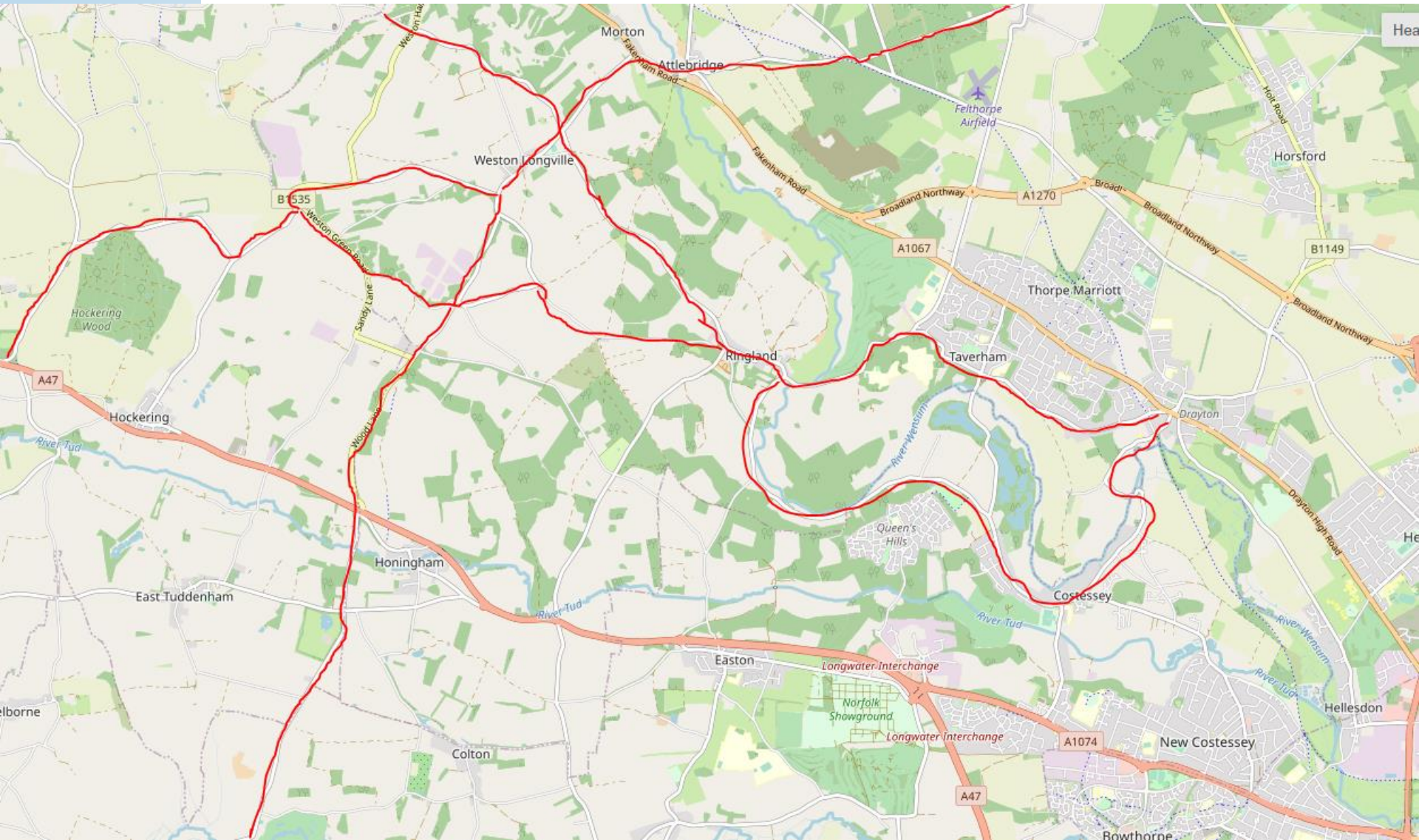
3.1 Sustainable Transport Measures

- Priorities were sought via the consultation for sustainable transport measures and a multi-criteria appraisal resulted in shortlisting as follows:
 - Option 4 (C): Create a cycle friendly on-road link from Attlebridge and Weston Longville and towards Norwich via Ringland and Taverham
 - Option 3 (B): Create a new pedestrian and cycle crossing on Drayton High Road to improve connectivity with the Marriott's Way
 - Option 5 (D): Create A cycle friendly on-road link from Ringland to Easton
 - Option 7E (E): Create a cycle-friendly on-road link south of A47 from Easton to the Norfolk and Norwich University Hospital & University of East Anglia
 - Option 1 (A): Create a new pedestrian and cycle crossing on the A1067 Fakenham Road at Attlebridge.

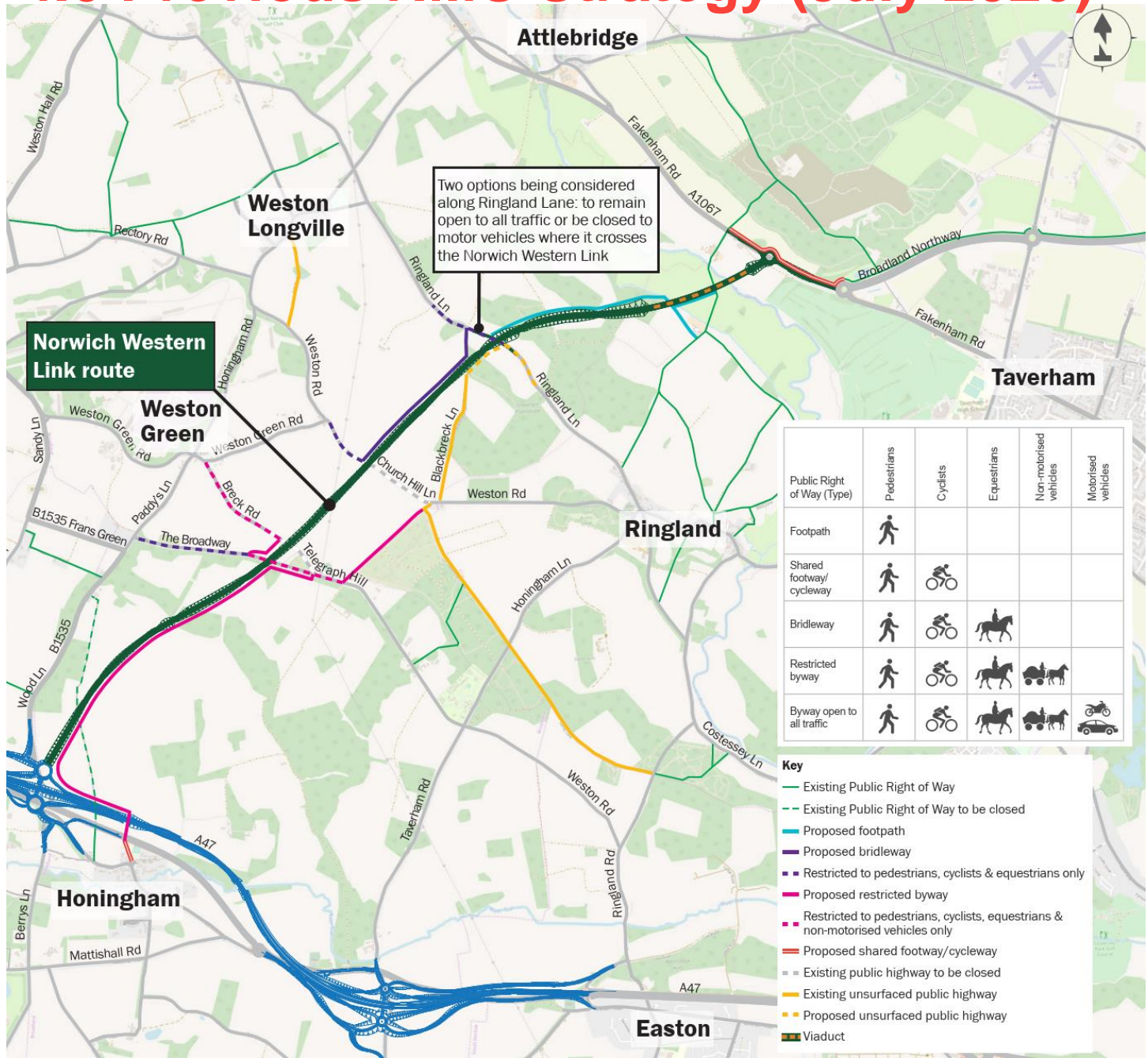
3.2 Shortlisted Options



3.3 Wensum Valley cyclist routes



4.0 Previous NMU Strategy (July 2020)



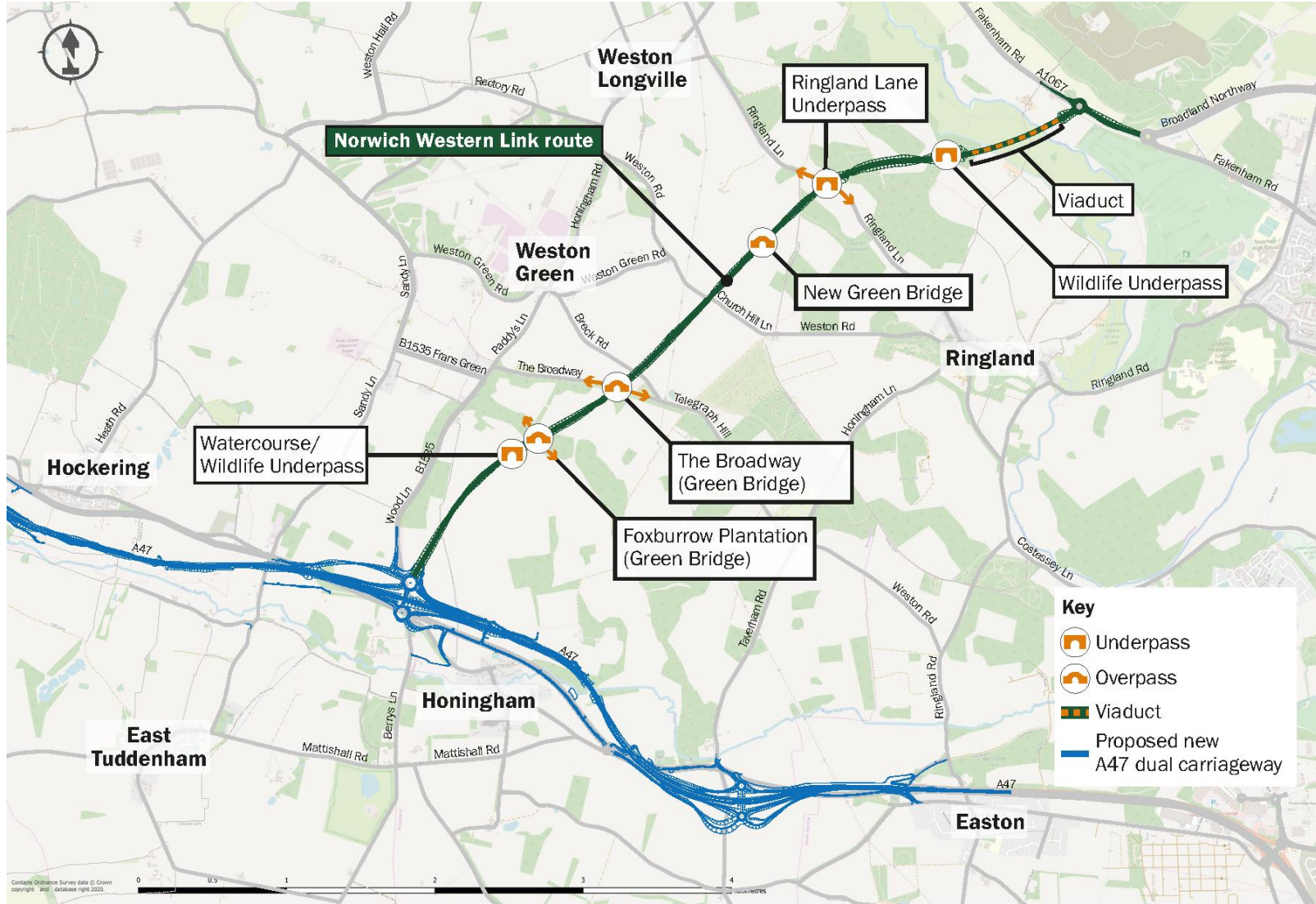
4.1 Non-Motorised Users & Side Roads

- The Non-Motorised User and Side Road strategy has been developed with input from local stakeholders and local communities close to the Norwich Western Link.
- The strategy has been amended in response to feedback gathered via a Local Access Consultation in July 2020 and technical work on the project since July 2020.
- The revised proposals include previously proposed elements:
 - A green bridge at The Broadway available to Non-Motorised Users (NMU)s but closed to motor vehicles
 - Closure of Weston Road/Church Hill Lane to through-traffic where it crosses the NWL.
 - Closure of Breck Road to all users with NMUs diverted to The Broadway

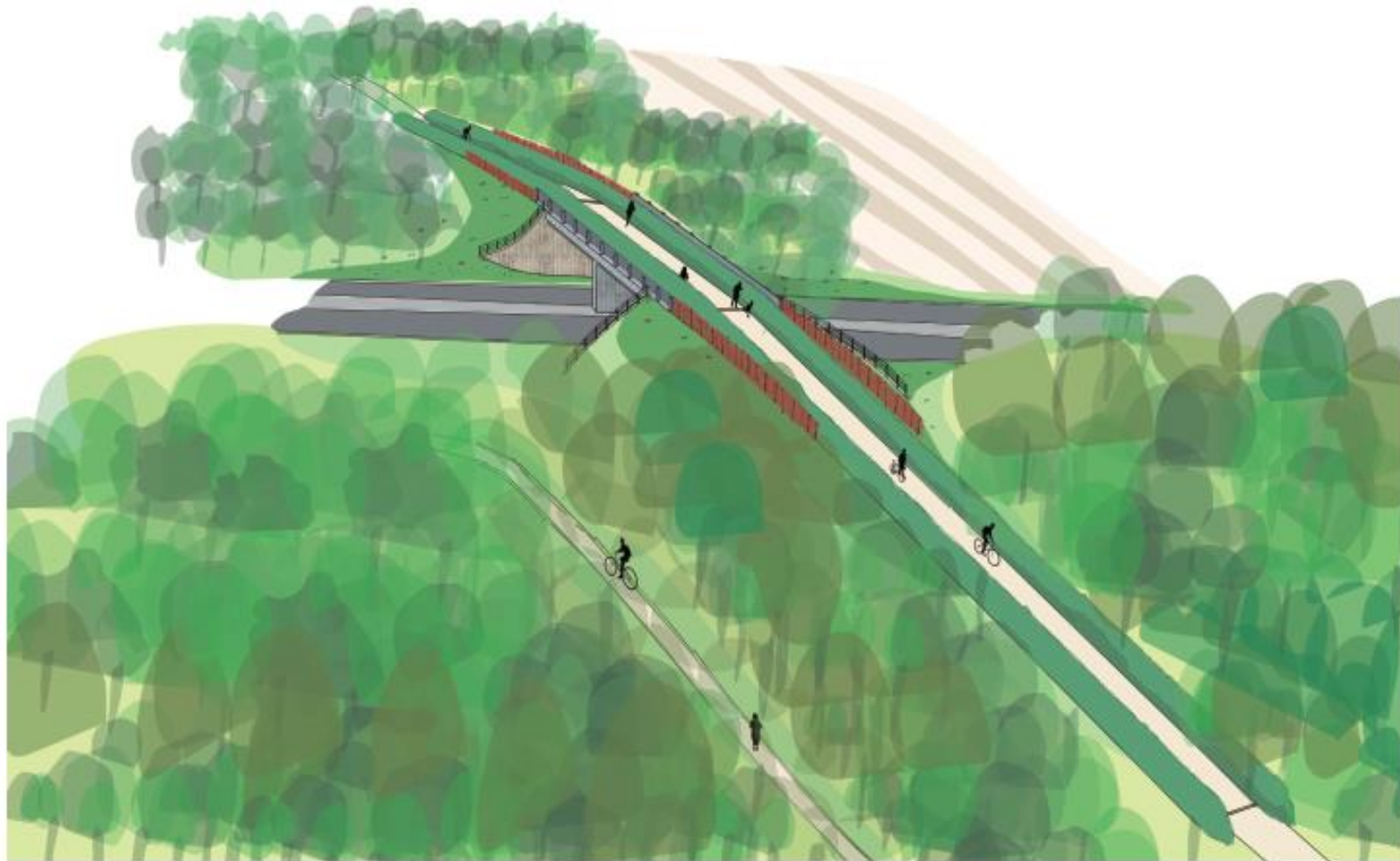
Plus new/revised elements:

- An additional Green Bridge between Weston Road and Ringland Lane with bridleway crossing the NWL to connect with Blackbreck Lane.
- Ringland Lane to remain open to all traffic

4.2 Side Roads & Green Bridges



4.2 Green Bridges



14

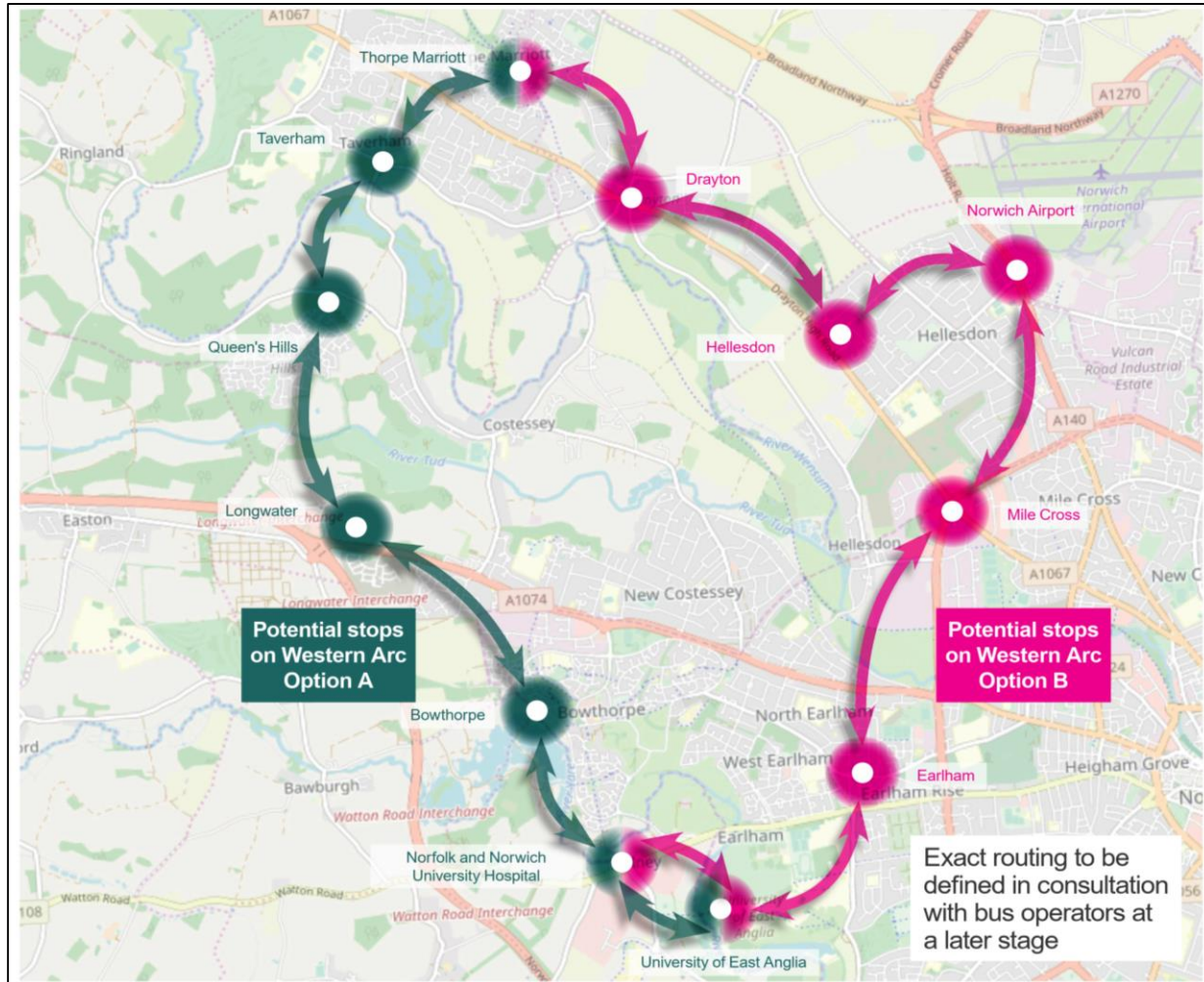
Artists impression of The Broadway green bridge (looking west)

4.3 Side Roads & Traffic Mitigation

- The NWL team are working up potential traffic mitigation measures, focussing on links along the A1067 and to the north as well as south of A47 where traffic is potentially redistributed in response to the proposals.
- Additional transport model runs will be carried out to test the likely effects of potential mitigation ideas.
- Separate meetings will be held to discuss the proposals in more detail with affected groups of Parishes.

5.0 Bus Strategy

- Two potential bus route options were considered in the Local Access Consultation:



5.1 Bus Strategy

- Consultation feedback indicated that Option A (Thorpe Marriott to UEA via Norwich Airport) was most popular amongst local residents.
- A viability assessment was carried out which indicated that both options have potential for becoming self supporting.
- Konectbus in partnership with UEA trialled part of the Option B service from the Airport Park and Ride to the Hospital (NNUH) from September 2020 as service 512 operating hourly.
- However due to Coronavirus the trial was unsuccessful. The 512 service was discontinued due to lack of uptake in December 2020.
- Both options therefore continue to be explored as part of the NWL Sustainable Transport Strategy with input from bus operators and the NCC Passenger Transport team.

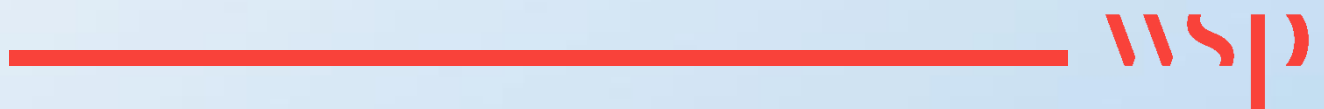
6.0 Next Steps

- Meeting with Sustrans to seek more detailed guidance on the design of Cycle Friendly Route Options
- Continue working with bus operators and NCC Passenger Transport Team to agree a preferred option for the bus strategy
- Work to develop the shortlisted sustainable transport measures
- We will continue working in partnership with Highways England regarding A47 North Tuddenham to Easton Dualling scheme.

Thank you

Appendix C

WALKING, CYCLING & HORSE- RIDING ASSESSMENT REPORT





Norwich Western Link

NCCT41793

Volume 4

Part B

Annex 1: Walking, Cycling and Horse Riding Assessment
(WCHAR)



Revision	Date	Issued by	Comments
V2.0	12 June 2020	UKPJC007	WCHAR updated for Procurement

Revision	Prepared by	Checked by	Authorised by
V2.0	Hattie Gibbs	David Minshall	Paula Cuthbertson



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NORWICH CYCLING MAP

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SUSTRANS FEEDBACK - 1ST OCTOBER 2019

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STAKEHOLDER WORKSHOP QUESTIONNAIRE

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LLG QUESTIONNAIRE

APPENDIX J

WESTON LONGVILLE PARISH COUNCIL NWL SUGGESTIONS

1 SCHEME DESCRIPTION AND BACKGROUND

1.1 BACKGROUND

- 1.1.1. The Norwich Northern Distributor Route (NDR) A1270, or Broadland Northway, was completed in April 2018. Since that time there has been sustained calls for the NDR to be continued to connect from its western end to the A47 trunk road, to ease traffic problems in the local area and enhance strategic connectivity.
- 1.1.2. Highways England plan to improve the A47 between Easton and North Tuddenham to a dual carriageway, over a 9km section of route, with work currently planned to commence in 2022.
- 1.1.3. Norfolk County Council undertook an Option Assessment process to develop a shortlist of options for a new Norwich Western Link (NWL), connecting Broadland Northway to the A47. The outcome of this study was the selection of a preferred route option, Option C in July 2019.
- 1.1.4. The preferred route involves the construction of a new 6.1 kilometre / 3.8-mile dual carriageway. The construction of this new NWL link would complete an orbital route around the city of Norwich, in combination with the A47 dualling scheme.
- 1.1.5. This report has been prepared in accordance with DMRB GG 142 Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) [*Superseding HD 42/12 in November 2019*], which is Highways England overall process for the consideration of walking, cycling and horse-riding facilities within highway schemes. In accordance with GG 142, the scale of the scheme has been judged (by the Lead Assessor) to qualify as a large scheme for the purposes of the Assessment, with the following information requirements:
 - Review of walking, cycling and horse-riding policies / strategies;
 - Collision data;
 - Description of public transport facilities;
 - Key trip generators and local amenities;
 - Site visit;
 - Consultation with key stakeholders;
 - Description / review of existing walking, cycling and horse-riding network facilities at a local and county wide (strategic) level;
 - Collation and analysis of walking, cycling and horse-riding user data; and
 - Evidence of consultation with local user groups and the wider public.

1.2 PROJECT OBJECTIVES

- 1.2.1. A range of project objectives have been developed to align with the current overarching themes presented in national, regional and local policy, as well as associated guidance. The objectives are in two tiers as high-level and specific local objectives, which have been discussed at meetings with local communities and are subject to ongoing refinement (**Table 1-1**). Those relevant to the WCHAR have been highlighted in red below and the strategy has been developed with these in mind.

Table 1-1 – Norwich Western Link project objectives

Strategic Objective	Strategic Outcomes
<p>S1 Improve connectivity and journey times on key routes in Greater Norwich.</p>	<ul style="list-style-type: none"> i) Improved journey times and journey time reliability, on routes through the area west of Norwich ii) Reduced congestion and delay through the area west of Norwich iii) Reassignment of traffic away from existing routes reducing delay and congestion iv) Improved existing accessibility. v) Reduced emergency response times vi) Improved network resilience vii) A more-suitable direct route for HGV/LGV vehicles viii) Reduced trips on local minor roads for vehicular traffic
<p>S2 Reduce the impacts of traffic on people and places within the western area of Greater Norwich</p>	<ul style="list-style-type: none"> i) Reassignment of trips onto appropriate routes ii) Reduced noise impacts in built-up areas iii) Improved Non-Motorised User connectivity iv) Improved air quality in built-up areas v) Minimised traffic impacts on local residents during construction in the vicinity of the scheme
<p>S3 Encourage and support walking, cycling and public transport use</p>	<ul style="list-style-type: none"> i) Increased number of trips taken by walking, cycling and public transport ii) Increased access to public transport, walking and cycling facilities
<p>S4 Improve safety on and near the road network, especially for pedestrians and cyclists</p>	<ul style="list-style-type: none"> i) Reduced overall network accident rate ii) Reduce the number of people killed or seriously injured on roads in the area west of Norwich iii) Minimise highway safety impacts and severance during construction
<p>S5 Protect the natural and built environment, including the integrity of the River Wensum SAC.</p>	<ul style="list-style-type: none"> i) Biodiversity Net Gain ii) Minimised impact on landscape iii) Minimised impact on heritage iv) Not affect the integrity of the River Wensum SAC v) Minimise impact of the scheme on climate change vi) Minimise adverse environmental impacts arising from construction
<p>S6 To improve accessibility to key sites in Greater Norwich</p>	<ul style="list-style-type: none"> i) Improved accessibility to Norwich International Airport, Norfolk & Norwich University Hospital and key employment and education sites i) Improved accessibility to green areas ii) Improved access to the cycle and Public Rights of Way network

1.3 PROPOSED SCHEME & Preferred Route

1.3.1. Following the scheme appraisal and option shortlisting, the preferred route recommendation for NWL was made. A preferred route is required in order to continue delivery of the project through the statutory and funding processes, appoint a contractor to construct the scheme and interface with other stakeholders / projects such as the Highways England A47 Easton to North Tuddenham dualling scheme. In July 2019 Option C was recommended as the preferred option for the Norwich Western Link, shown in **Figure 1-1**.

1.3.2. Option C comprises a new dual carriageway, routed from the end of the Broadland Northway / A1067 roundabout, extending a short distance along the A1067 towards a new junction and linking to the B1535 Wood Lane junction with the A47. Works comprise dualling of the A1067 from the Broadland Northway roundabout for around 350m before a new A1067 junction and then continuing on a new dual carriageway in a south westerly direction between Weston Longville and Ringland, initially crossing the River Wensum on a viaduct.

1.4 STUDY AREA

1.4.1. **Figure 1-1** shows the approximate study area for this Assessment Report. The assessment area has been set by the Lead Assessor and is approximately a 5km radius from the centre of the scheme, as per GG 142 guidance. The study area includes parts of the Districts of Breckland, Broadland and South Norfolk, as well as the cusp of the city of Norwich.

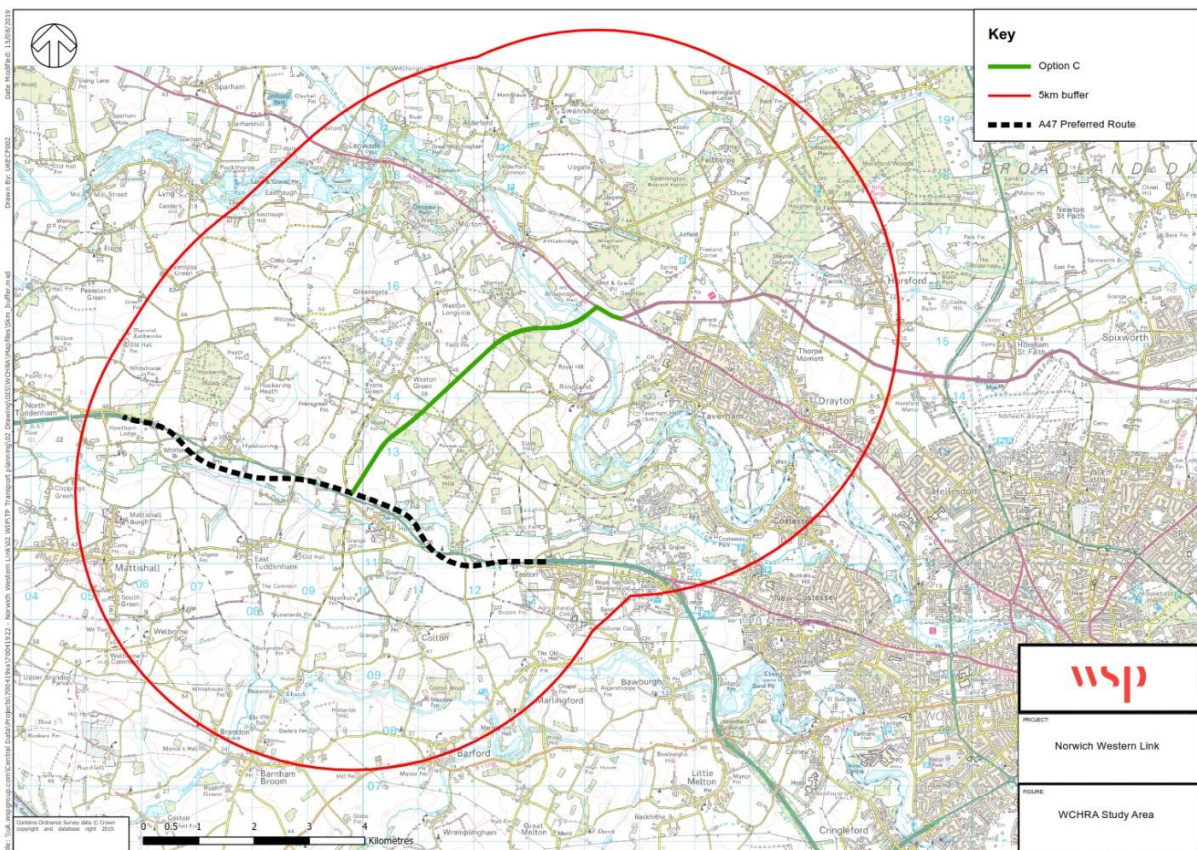


Figure 1-1 - WCHAR Study Area

2 WALKING, CYCLING AND HORSE-RIDING ASSESSMENT

2.1 INTRODUCTION

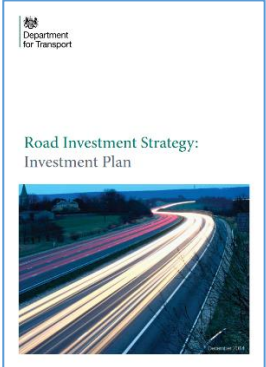
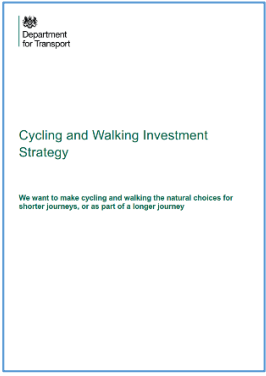

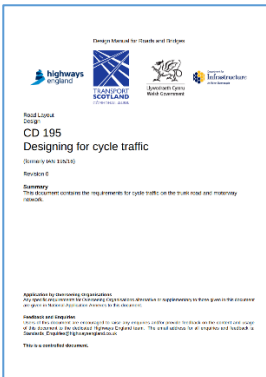
- 2.1.1. This section summarises the findings of the assessment undertaken in accordance with the methodology set out in Section 4 Walking, Cycling and Horse-Riding Assessment Requirements in DMRB GG 142.
- 2.1.2. Section 8.4 of the Option Selection Report’ (**Appendix A**), ‘Packaging of Supplementary Transport Measures’, identifies that a Walking, Cycling and Horse Riding Assessment would be undertaken to inform the development of a complementary package of non-motorised user interventions. This Assessment provides background user information that can be referred to throughout the design process and identifies opportunities for improvement for users. The opportunities presented will then be examined for feasibility in the WCHAR Review, which is the second stage of the WCHAR process. Reference to this Assessment will assist with development of a sustainable transport strategy, providing input to the Outline Business Case, and seeking to maximise opportunities for transferring shorter distance trips to non-motorised modes of travel, where possible.

2.2 REVIEW OF WALKING, CYCLING & HORSE-RIDING POLICIES AND STRATEGIES


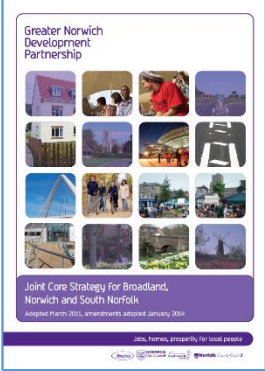
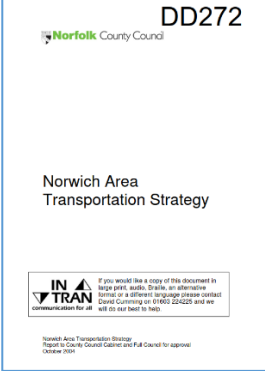
- 2.2.1. **Table 2-1** shows the documents that have been reviewed as part of this assessment:

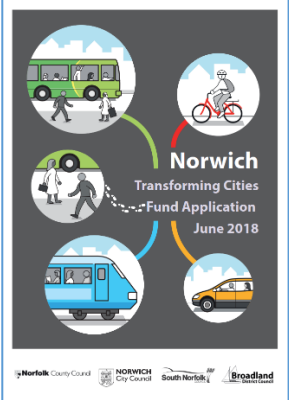

Table 2-1 – List of policies and documents reviewed

Policies			
National	DfT Local Transport Note 2/08: Cycle Infrastructure Design (2008)		<p>The Note has been written to bring together guidance policy to encourage more people to cycle.</p> <p>The Note provides guidance on improving safety for cyclists and pedestrians through the design of cycle infrastructure</p>
	DfT Local Transport Note 1/12: Shared Use Routes for Pedestrians and Cyclists (2012)		<p>This Note provides guidance on the planning, design and provision of shared routes for pedestrians and cyclists.</p>

<p>DfT Road Investment Strategy: Investment Plan (2014)</p>		<p>The RIS sets out how investment will be put towards the Strategic Road Network between 2015/16 and 2020/21 through an investment of £15.2bn in over 100 major schemes.</p> <p>The A47 / A12 trunk road is highlighted as an area for investment during the RIS period, in particular the North Tuddenham to Easton dualling is noted, which is within the study area.</p>
<p>DfT Cycling and Walking Investment Strategy (2017)</p>		<p>The Strategy outlines the Government's ambition to make cycling and walking a natural choice for shorter journeys, or as part of longer journeys by 2040.</p> <p>By 2040, the ambition is to deliver "Better Safety, Better Mobility and Better Streets".</p> <p>The ambition will be delivered through more high-quality cycling facilities, rural roads which provide improved safety for walking and cycling, behaviour change shifts and places that are designed for people of all abilities so they can choose to work or cycle with ease.</p>
<p>Highways England Strategic Business Plan / Delivery Plan 2015 – 2020 (2015)</p>		<p>The Strategic Business Plan applies between 2015 and 2020. Over this period, Highways England aims to modernise, maintain and continue operating the Strategic Road Network.</p> <p>Within the Plan, eight key areas are highlighted to measure the Plan's performance, including that to "help cyclists, walkers and other vulnerable users". This will be measured by the number of new or upgraded crossings.</p>
<p>Design Manual for Roads and Bridges CD 195 Designing for Cycle Traffic</p>		<p>The document published in September 2019, replaces IAN 195/16 and contains the requirements for cycle traffic on the trunk road and motorway network.</p>

	<p>Design Manual for Roads and Bridges</p> <p>CD 143 Designing for Walking, Cycling and Horse-riding</p>		<p>The guidance document published in November 2019, replaces TA 91/05 'Provisions for Non-motorised Users' and shall be used for routes on and / or adjacent to the motorway and trunk road network.</p> <p>The general design principles are that routes shall be free from unnecessary diversions, frequent obstacles and fragmented facilities.</p>
<p>Regional</p>	<p>Connecting Norfolk - Norfolk County Council's Local Transport Plan 2011-2026 (2011)</p>		<p>Norfolk's 3rd Local Transport Plan sets the long-term strategy for transport delivery up to 2026. It provides the policy framework for improvements to transport as well as being a guide for future development or delivery.</p> <p>The Vision for Transport is “<i>a transport system that allows residents and visitors a range of low carbon options to meet their transport needs and attracts and retains business investment in the County</i>”.</p> <p>Policy 2 highlights the need to increase journey time reliability, especially for public transport to reduce traffic in the region.</p>
	<p>Norfolk Strategic Framework – Shared Spatial Objectives for a Growing County (2017)</p>		<p>The production of the framework aims to agree shared objectives and priorities which will inform future Local Plans.</p> <p>To reduce Norfolk's greenhouse gas emissions, there will be encouragement towards a modal shift in travel away from car use towards public transport, walking and cycling.</p> <p>The A47 Easton to Tuddenham dualling and Norwich Western Link are highlighted as key projects to improve transport in the region; this is within the study area.</p>
	<p>Norfolk Strategic Infrastructure Delivery Plan 2018-2028 (2018)</p>		<p>The Strategic Infrastructure Delivery Plan (SIDP) combines information on the key infrastructure needed to deliver economic growth in Norfolk.</p> <p>The SIDP highlights the Norwich Western Link as a key infrastructure initiative over the next 10 years; which is within the study area.</p>

	<p>Norfolk Access Improvement Plan (NAIP) 2019 – 2029 (2019)</p>		<p>The NAIP incorporates the Rights of Way Improvement Plan and sets out priorities for improving access to the countryside for residents and visitors over the next ten years.</p> <p>The Statement of Actions includes: development of integrated network, promotion of Norfolk’s access network, increased community involvement for the development and acre of the local networks and a network that will improve the health and wellbeing of residents and visitors.</p> <p>The report highlights the priority needs for walkers, cyclists and horse riders, in order to provide guidance on improvement measures necessary during the plan period.</p>
<p>Local</p>	<p>Joint Core Strategy for Broadland, Norwich and South Norfolk 2011-2026</p>		<p>The Joint Core Strategy has been prepared by the three councils of Broadland, Norwich and South Norfolk, working together with Norfolk County Council as the Greater Norwich Development Partnership. The report includes strategic policies for shaping development and sets out the long-term vision of the Partnership.</p> <p>Objective 7 and 12 support the enhancement of transport provision through the greater use of sustainable modes by public transport, walking and cycling. The report furthers the need for people to be offered the best opportunities to make healthy travel choices a part of their daily lives.</p>
	<p>Norwich Area Transportation Strategy (2010)</p>		<p>The Transport Strategy has been designed to help deliver the growth that will happen within the Norwich area and address transport problems.</p> <p>The Strategy aims to increase travel choice for all by improving facilities for walking and cycling and routes for public transport., such as bus priority measures on the core bus network.</p> <p>The strategy also considers the addition of further Park and Ride sites around Norwich, such as Trowse, Taverham and Drayton to reduce congestion.</p>

<p>Norwich Transforming Cities Fund Application (2018)</p>		<p>The bid looks to transform the connectivity in Norwich through a coordinated package of improvements to economic growth areas on three transport corridors and in the city centre.</p> <p>The vision to “invest in clean transport creating a healthy environment increasing social mobility and boosting productivity through enhanced access to employment and learning.”</p> <p>The project has two main objectives, which are to support employment growth and to cut carbon, whilst also support two secondary objectives of housing growth and air quality.</p> <p>The corridors are: Airport to Broadland Business Park, Wymondham to Sprowston and Easton to Rackheath. The scope covers the City Centre and the six radial routes of Newmarket Road, Dereham Road, Yarmouth Road, Sprowston Road, Aylsham Road and Cromer Road.</p> <p>The investment programme will transform the corridors by reducing bus times, improving connectivity between transport modes and cutting pollution.</p>
<p>Transport for Norwich</p>		<p>Transport for Norwich is a programme of work to improve accessibility by all forms of transport around the city until 2036.</p> <p>The aim is to encourage the use of more sustainable forms of transport such as public transport, cycling and walking, while also improving the capacity on the network, especially along the Broadland Northway.</p> <p>The project will be rolled out in partnership with Norfolk County Council, Norwich City Council and local authorities within Greater Norwich,</p> <p>A project of significant that is seeking funding from the bid is the Cross Valley Link, that will create a new bus link form UEA to NNUH, reduce travel times by avoiding congestion on the current route.</p>

2.3 COLLISION DATA

2.3.1. A review of Personal Injury Accidents (PIA), including vulnerable road users (pedestrians and cyclists) has been undertaken in the vicinity of the proposed scheme, using data requested from NCC. The results are shown in **Figure 2-1**.

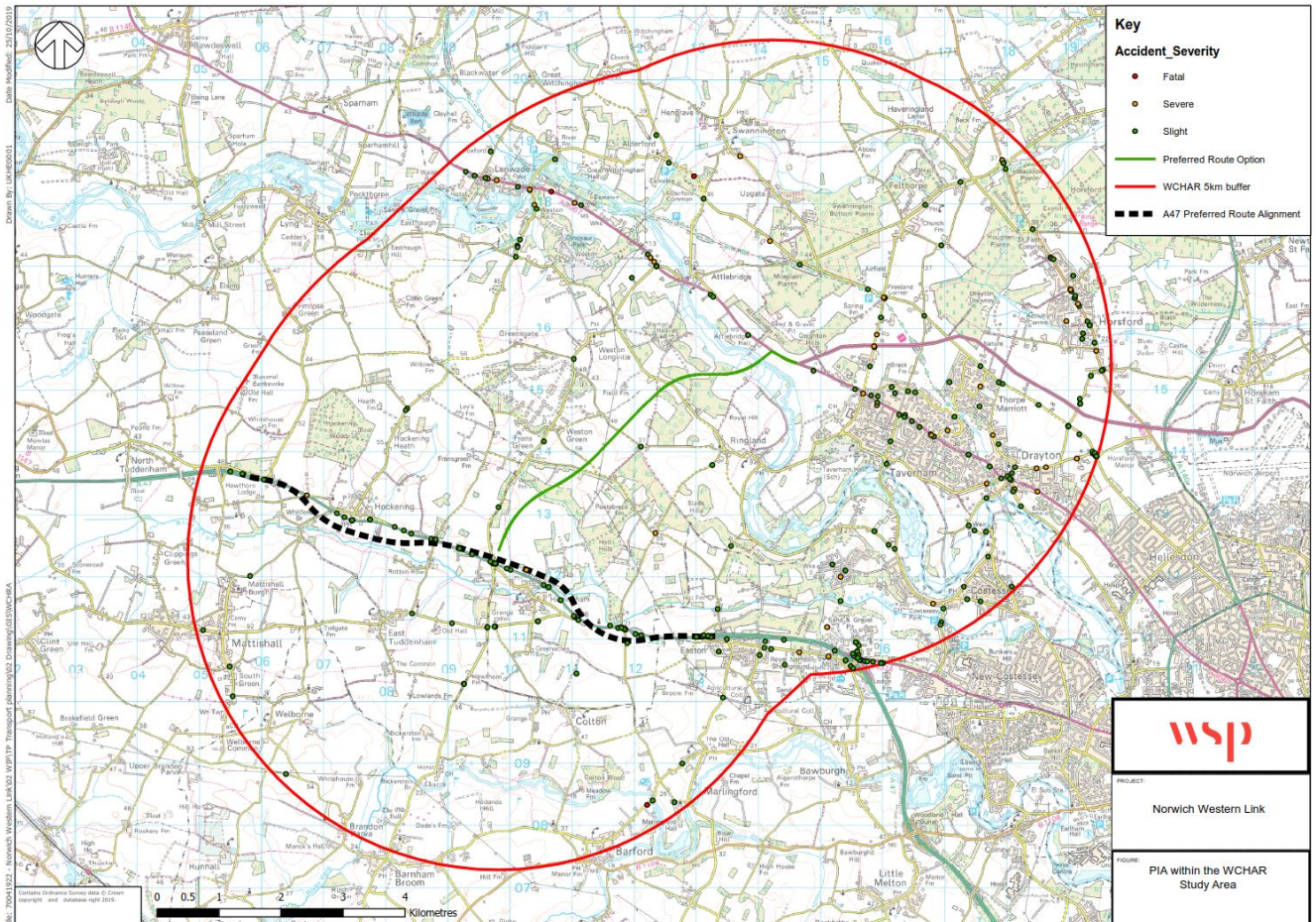


Figure 2-1 - PIAs within the WCHAR Study Area

- 2.3.2. **Figure 2-1** shows that in total there were five fatal, 52 serious and 247 slight collisions between 01/08/2014 – 11/07/2019, totalling 304 collisions in the study area.
- 2.3.3. Collisions were clustered in areas such as on the A47; 16 slight collisions were located on the approach to or on the Longwater A47 roundabouts; 12 slight collisions on the Easton roundabout; 6 slight and 2 serious collisions on the A47 Blind Lane / Taverham Road junctions; and 2 serious and 8 slight collisions on the A47 Berry's Lane / B1535 junctions.
- 2.3.4. It is anticipated that there will be some collision reduction along the A47 corridor brought about by the improvement works planned by Highways England.
- 2.3.5. Of the 304 reported PIAs, there were 404 casualties over the five-year period, of which 5 were fatal, 59 were serious and 340 were slight injuries. When this is split between those who are an adult or a child, 15% were adults killed or seriously injured, 1% were children killed or seriously injured and 84% were slight casualties (Adult or child).
- 2.3.6. Of all the accidents recorded, only three of slight severity were recorded to have been caused by a poor road layout or a poor / defective road surface.

- 2.3.7. Regarding the type and number of vehicles that were involved in the collisions, there were:
- 2 agricultural vehicles;
 - 11 buses or coaches;
 - 424 cars;
 - 13 HGVs;
 - 20 LGVs; and
 - 31 Bicycles.
- 2.3.8. The A1067 presents a barrier to free movement between the central and northern parts of the study area. This corridor would benefit from improved or new crossings to improve safety and enhance connectivity with public transport. The A47 also presents an existing barrier to north south movement but NMU provision is expected to be included in the Highways England proposals for dualling, which should mitigate this issue and enable improved connectivity.

2.4 PUBLIC TRANSPORT SERVICES AND INTERCHANGE INFORMATION

BUS SERVICES

- 2.4.1. There are bus services available throughout the study area, with the greatest concentrations located within the key residential areas, which reduce in the more isolated, rural zones.
- 2.4.2. Along the proposed route alignment, Option C, there are no bus stops, with the nearest located on Norwich Road and Fakenham Road. **Figure 2-2** below shows the bus network for the greater Norwich area, the map highlighting the lack of connections to the study area. The nearest services are to the north-east of the study area on the Yellow Line by the bus operator First Norfolk or the Excel services to Fakenham and to Dereham, King's Lynn and Peterborough.
- 2.4.3. Norwich Bus Station is located outside of the study area in the centre of Norwich, off Surrey Street and Queens Road, which is managed and operated by Konectbus.
- 2.4.4. Konectbus provide the 3, 4 and 8 services to the west of Norwich, connecting Barnham Broom, Barford, Mattishall, East Tuddenham, Honingham, Easton and Hockering.
- 2.4.5. It is anticipated that NWL will support important bus services such as the First Bus X29 / 29 service from the North West of the County by intercepting some of the traffic that currently uses Fakenham Road and other roads parallel with NWL (Section 8.4 of the NWL Option Selection Report (OSR)). This would potentially assist with improving bus journey time reliability on existing routes by freeing up road space.

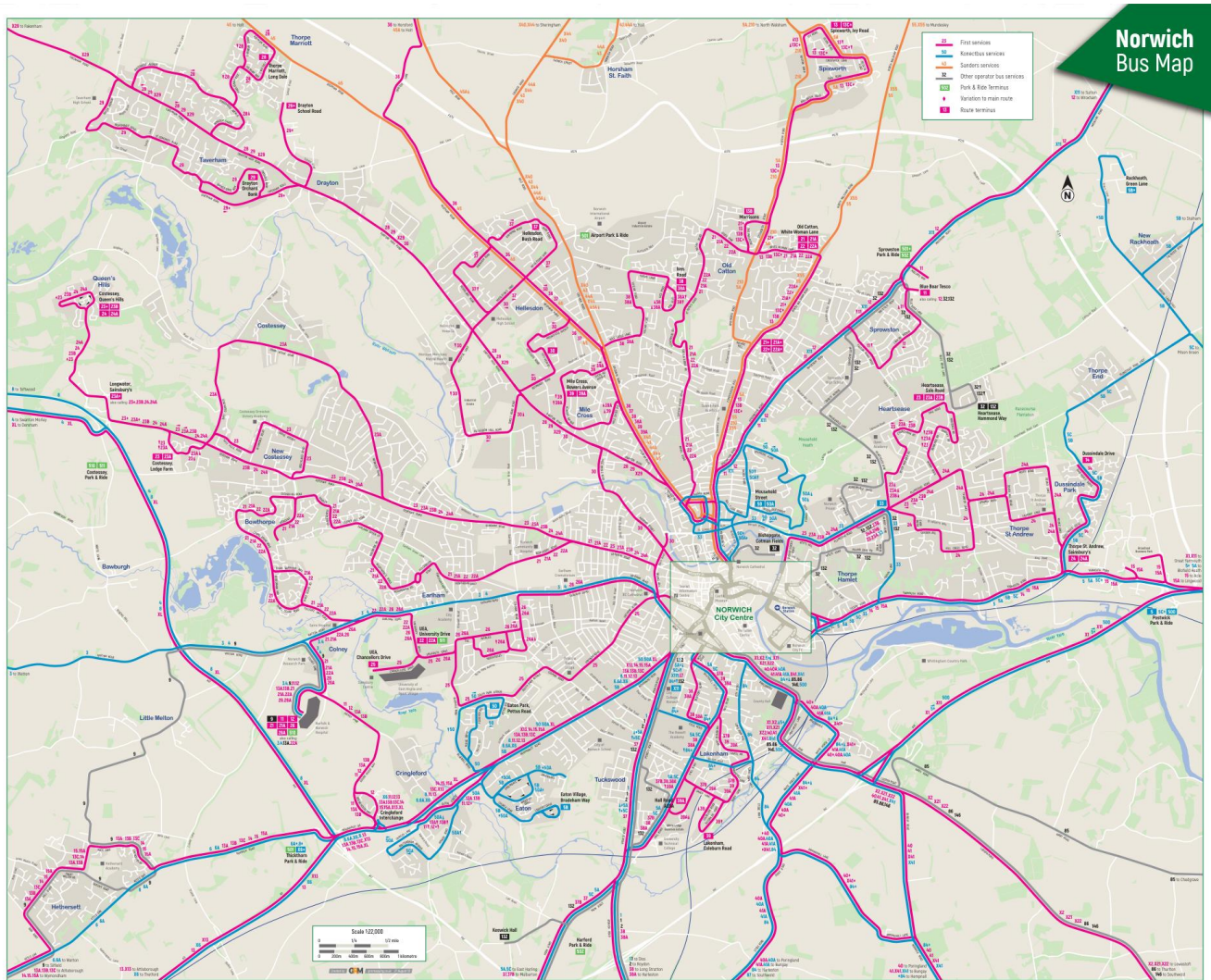


Figure 2-2 - Greater Norwich Bus Network Map

RAIL SERVICES

2.4.6. To the south-east, outside of the study area, is Wymondham Train Station on the Breckland Line; to the east, also outside of the study area, is Norwich Station, on the Wherry Line. Further services on the Bittern Line (Norwich to Cromer) and Great Eastern Mainline (Norwich to London Liverpool Street) allow for Norwich to have strong connectivity to key destination (**Figure 2-3**). Wymondham and Norwich Stations are operated by Greater Anglia and received 4.16 million and 187,000 passengers in 2017/2018 respectively (Office for Rail and Road, 2019).

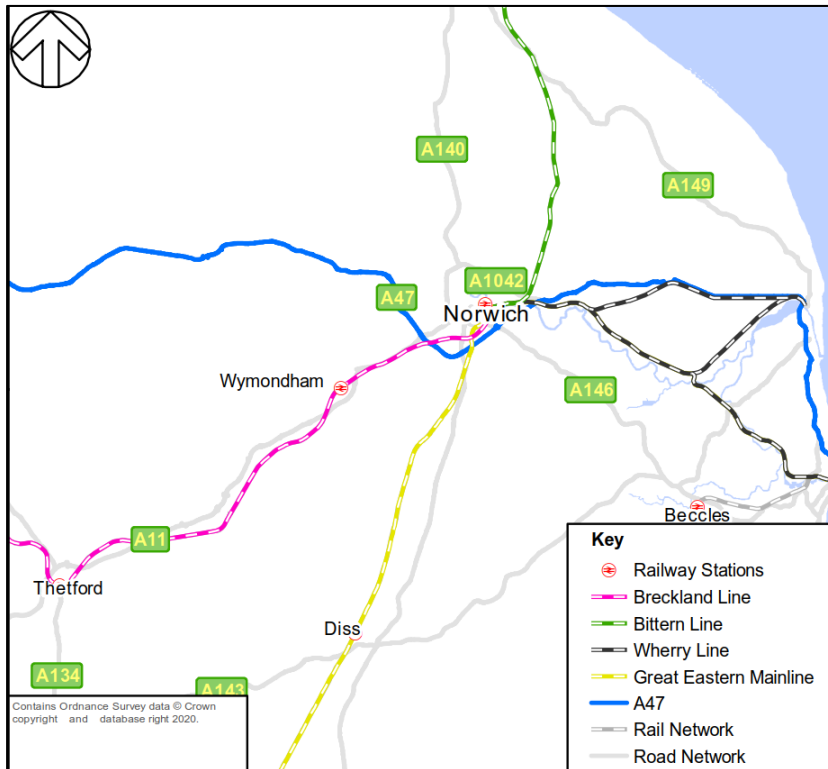


Figure 2-3 – Local Rail Map

2.4.7. The majority of services from Wymondham are to Cambridge and Norwich, with stops to Attleborough, Thetford, Brandon, Ely and Cambridge North creating an average journey time of 1 hour 7 minutes. Greater Anglia have now included an hourly service to Stansted Airport from Norwich, following the Norwich to Cambridge route. **Table 2-2** below summarises the weekday services available from Wymondham Station.

Table 2-2 – Weekday Direct Services from Wymondham Station

Destination	Calling points	Frequency	First Service	Last Service	Average Journey Time
Cambridge	Attleborough, Thetford, Brandon, Ely and Cambridge North	Hourly	05:45	22:52	1 hour 7 minutes
Norwich	-	Hourly	07:11	00:01	15 minutes

Stansted Airport	Attleborough, Thetford, Brandon, Ely, Cambridge North, Cambridge, Whittlesford Parkway and Audley End	Hourly	08:45	19:39	1 hour 40 minutes
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Source: National Rail, 2020

2.4.8. From Norwich Station, a number of key destinations can be accessed, namely to Liverpool Lime Street, Lowestoft, Great Yarmouth, Cambridge, London Liverpool Street and Sheringham. **Table 2-3** below summarises the weekday services available from Norwich Station.

Table 2-3 – Weekday Direct Services from Norwich Station

Destination	Calling points	Frequency	First Service	Last Service	Average Journey Time
Cambridge	Wymondham, Thetford, Ely and Cambridge North	Hourly	05:33	22:40	1 hour 20 minutes
Liverpool Lime Street	Direct services through Ely and Manchester In-direct services change at London	2 per Hour	05:00	23:05	5 hours 30 minutes
Lowestoft	Brundall, Reedham and Oulton Broad	2 per Hour	05:36	22:40	45 minutes
Great Yarmouth	Brundall, Lingwood and Acle	Hourly	05:06	23:00	35 minutes
London Liverpool Street	Stowmarket, Ipswich and Colchester	2 per hour	05:00	22:40	2 hours
Sheringham	Hoveton & Wroxham, North Walsham and Cromer	Hourly	05:10	22:45	1 hour
Stansted Airport	Wymondham, Thetford, Brandon, Ely, Cambridge North, Cambridge, Whittlesford Parkway and Audley End	Hourly	08:33	19:27	2 hours

Source: National Rail, 2020

2.5 EXISTING PEDESTRIAN, CYCLIST AND EQUESTRIAN FACILITIES WITHIN THE LOCAL AREA

PEDESTRIAN FACILITIES

2.5.1. The study area is located in the rural areas to the west of Norwich City Centre, where there are a number of PROWs available for use. Through interrogation of Norfolk County Council's online mapping tool, the location of PROWs through the study area have been identified.

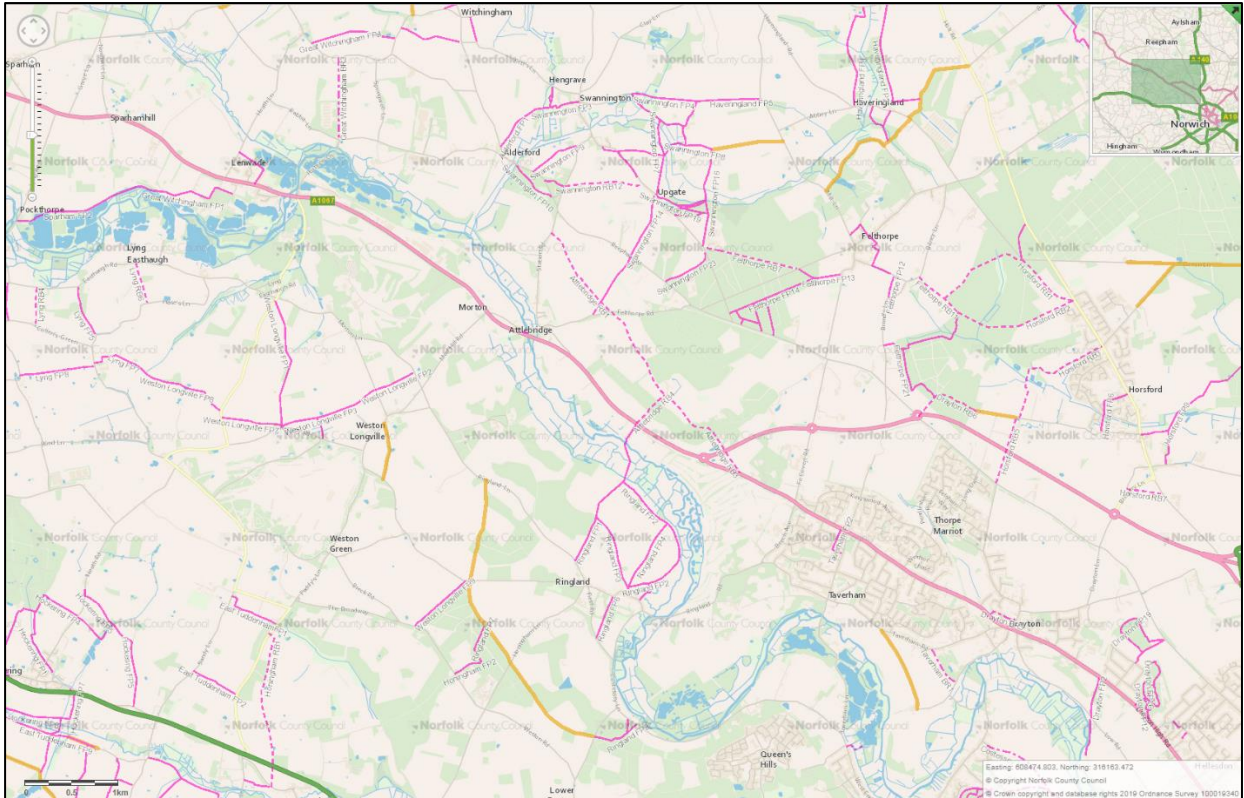


Figure 2-4 - PROWs - Study Area, North View (Source: Norfolk County Council)

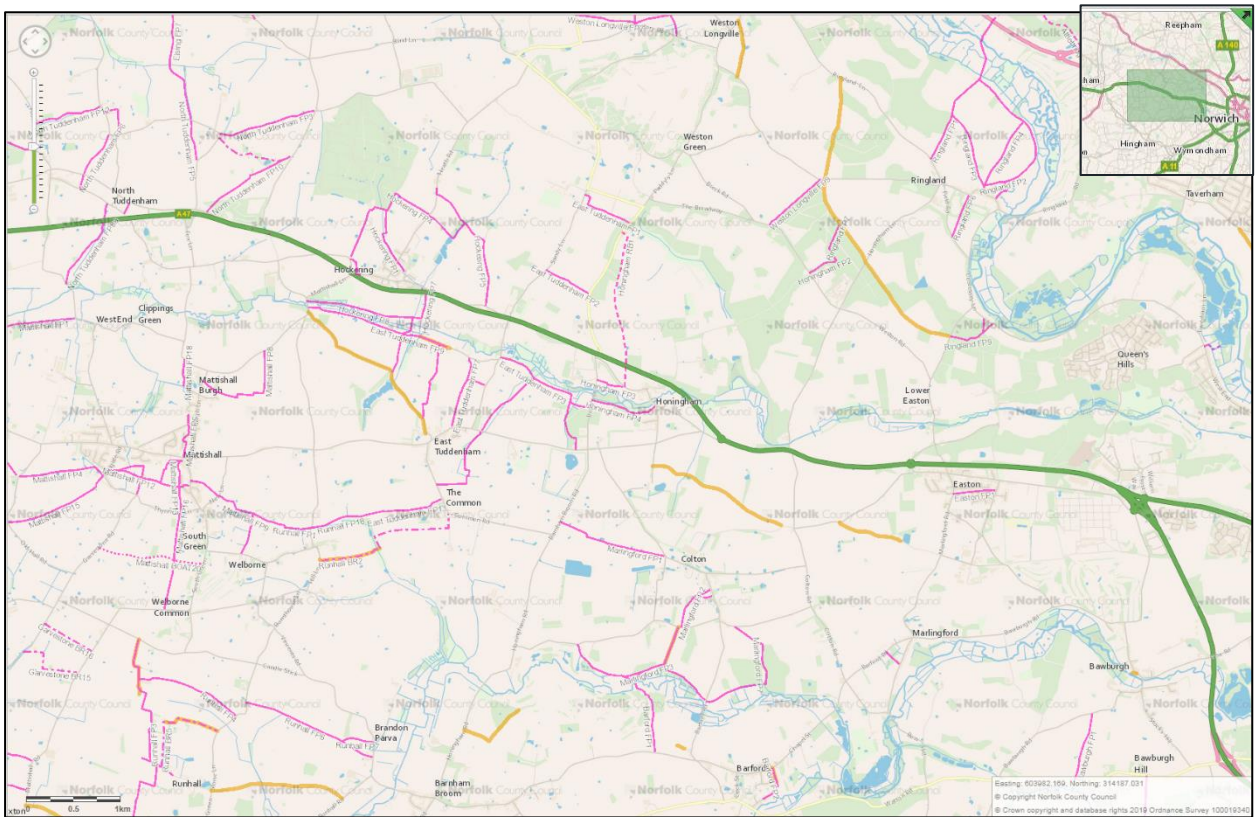


Figure 2-5 - PROWs - Study Area, South (Source: Norfolk County Council)

- 2.5.2. The proposed route alignment of the NWL and that of the preferred route for the North Tuddenham to Easton dualling scheme will sever some of the existing PROWs and Green Lanes:
- **Honingham RB1** – the restricted byway will be severed twice, once by the NWL and again by the North Tuddenham to Easton dualling;
 - **Blackbreck Lane** (Ringland Lane to Weston Road), Green Lane – The unsurfaced highway maintained by Norfolk County Council will be severed;
 - **Ringland FP1** – will be severed near Attlebridge Hall;
 - **Hockering FP7** – The footpath will be severed by the North Tuddenham to Easton dualling project
 - **Dog Lane / Ringland Lane** – A current pedestrian crossing on the A47 Southern Bypass will be impacted by the new dualling project.
- 2.5.3. Walking isochrones have been produced to show the walking accessibility from different origins, key settlements, within the study area. The isochrone outputs are included in **Appendix C**.
- **Attlebridge**, pedestrians can travel into Morton Hall, Weston Longville and Ugate within 30 minutes; further travel to the east and west of the A1067 is hindered by the lack of safe pedestrian infrastructure;
 - **Costessey**, within a 30-minute walk is New Costessey, Costessey Park, the Marriott's Way and Taverham, showing that a number of amenities are easy to access for local residents.
 - **Drayton**, is centrally located and so a number of key settlements and amenities can be reached, including the outskirts of Costessey. Taverham, Thorpe Marriott and the outskirts Horsford and Hellesdon;
 - **Hockering**, travel is not possible along the A47 by sustainable modes and so travel is constrained to the north and south of the arterial road. Within 30 minutes Mattishall, Whitford and Hockering Heath can be reached;
 - **Horsford**, is quite isolated and so only Drayton and the neighbouring woodland are accessible on foot within 30 minutes;
 - **Lenwade**, is constrained to the west by the limited provision of pedestrian infrastructure along the A1067, however pedestrians can still travel to Pockthorpe, Weston, Great Witchingham;
 - **Mattishall**, within a 30-minute walk travel can be achieved in all directions to Welbourne, the outskirts of East Tuddenham' Mattishall Burgh and Clippings Green;
 - **Ringland**, is located towards the north portion for the proposed route alignment and current routes would allow for pedestrians to cross the route. Ringland Hills, Taverham and the outskirts of Attlebridge, Morton Hall and Weston can be reached;
 - **Taverham**, similar to that of Drayton, is constrained by the A1067 to the west and east and so travel is only possible to Costessey and the outskirts of Thorpe Marriott; and
 - **Weston Longville**, is located to the to the north-west of the proposed route alignment, and so within a 30-minute walk, pedestrians cross the route. Within 30 minutes Morton Hall, Weston Green and the outskirts of Morton and Attlebridge.

- 2.5.4. In summary, walking can cover a wide area and the delivery of the NWL can enhance the level of pedestrian use and possibly open up new routes for local residents and enthusiasts to enjoy.

CYCLIST FACILITIES

- 2.5.5. The study area encompasses a number of cycling routes and facilities, including those of the Norfolk Trails as highlighted in **Figure 2-7**. Furthermore, there are a number of local cycling groups that will be impacted by the preferred route announcement, who have been consulted.

- 2.5.6. As identified in the OSR, through initial scoping discussions with cycle officers at NCC, the assessment of the sustainable transport strategy will focus on the following key routes:

- Longwater to Taverham via Queens Hills;
- Ringland to Easton and Costessey P&R;
- Ringland to Lenwade via Weston Longville;
- Hockering to Honingham;
- Great Witchingham to Attlebridge;
- Identify A1067 crossing opportunities at Attlebridge and Drayton;
- Identify how best to achieve improved Marriott's Way connectivity; and
- Connectivity with Highways England proposals for A47 multi-user crossings.

- 2.5.7. Cycling isochrones have been produced to show the cycling accessibility from different origins, key settlements, within the study area. The isochrone outputs are included in **Appendix D**.

- Attlebridge, the northern portion of the study area can be travelled to within a 30-minute cycle, with further travel possible due to the use of the A1067 and the Marriott's Way trail; areas also include East Tuddenham, Colton, New Costessey, Felthorpe, Lenwade and Hockering.
- **Costessey**, from the origin, central Norwich can be reached within 30-minutes and areas such as Cringleford, Sprowston, Horsham St Faith, Barford and Colton;
- Drayton, Norwich City Centre can be accessed to the south-east of the origin, including Norwich Airport and its Park and Ride facility, Cringleford, Horsford and Weston Green.
- Hockering, is to the west of the study area on the A47. Within 15 minutes Mattishall and East Tuddenham can be reached, whilst in 30 minutes, half of the study area can be reached including Runhall, Colton, North Tuddenham, Yaxham, Lenwade Weston Green and Lyng;
- Horsford, is located to the north east of the study area, where a 30-minute cycle enables a number of key destinations to be reached: Spixworth, Felthorpe, Attlebridge, Taverham, Drayton, Costessey, Hellesdon and Norwich City Centre;
- Lenwade, located to the north-west of the study area, within 30 minutes, Honingham, Lyng, Sparham. Lenwade, Morton, Swannington, Taverham, Reepham and Hockering;
- Mattishall, to the south-west of the study area, is well placed for travel by bike, where a 30-minute cycle time enables users to reach Dereham, Barnham Broom, Barford, Colton, Hockering and Lyng;
- Ringland, is located in the centre of the study area, enabling cyclists to travel to Costessey, Bawburgh, Barford, Taverham, Drayton, Hockering, Felthorpe and Lenwade;



- **Taverham**, is close to Norwich City Centre, which can be reached within a 30-minute cycle journey, as well as Easton, Bawburgh, Hellesdon, Weston Green, Swannington and Horsford; and
- Weston Longville, located to the north-west of the preferred route option, enables cyclists to reach Weston Green, Ringland and Morton within 15 minutes, as well as Mattishall, Colton, Taverham, Drayton and Reepham in 30 minutes.

In summary, key settlements within the study area have strong cycling connectivity which can be enhanced through the delivery of NWL.

EQUESTRIAN FACILITIES

2.5.8. A number of equestrian facilities are located within the western part of the study area; these are shown in **Figure 2-6** below.

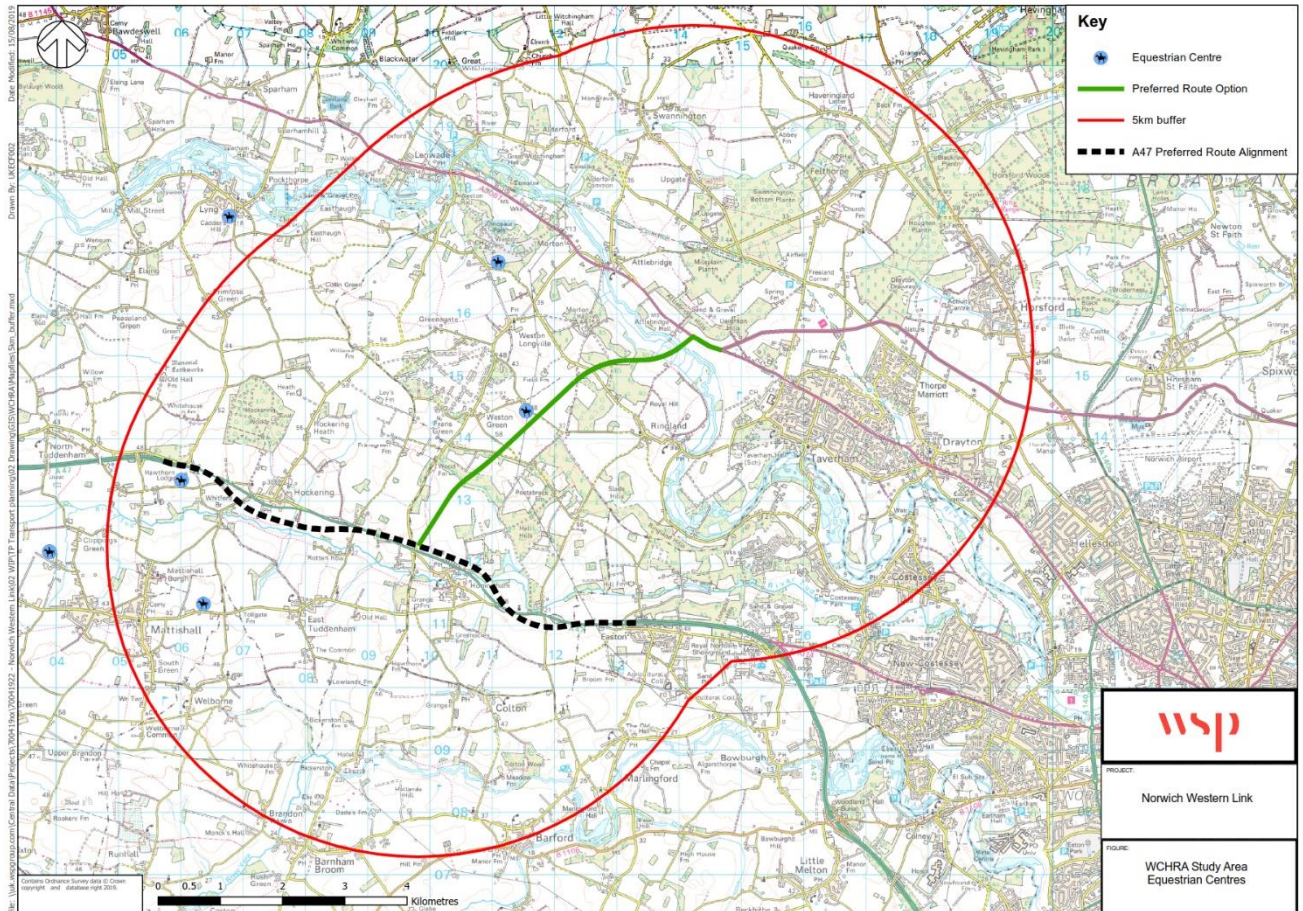


Figure 2-6 - Equestrian Facilities in the Study Area

- 2.5.9. Within the study area is Weston Equestrian Centre, Kimblewick Riding Centre and Burgh Farm Dressage, as well as one un-named stables along Weston Road.
- 2.5.10. The NWL programme could assist with supporting longer distance leisure trips by equestrians; this would consist of giving priority to equestrians / cyclists on quieter existing roads where parallel routes exist and looking at minor highway interventions to keep traffic speeds sufficiently low to raise awareness of the vulnerable users on the routes.

Facilities for all users

Marriott's Way

2.5.11. Not shown on the PROW map, is Marriott's Way in the north of the study area, which creates a 26-mile footpath, bridleway and cycle route following the route of two disused railway lines from Aylsham to Norwich. **Figure 2-7** below shows the location of the Marriott's Way and a further nine Norfolk Trails that can be used to explore the wider Norfolk area.

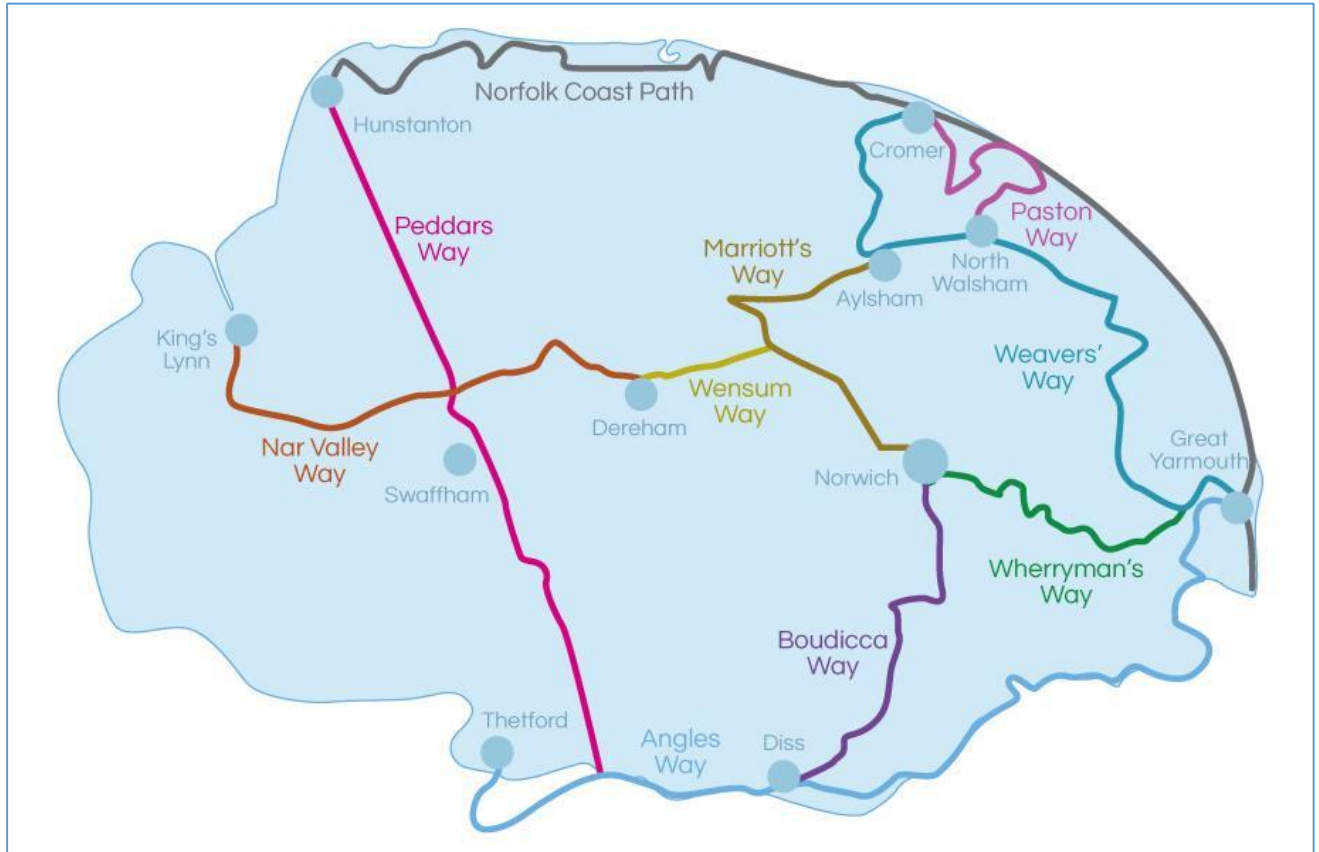


Figure 2-7 - Norfolk Trails Network

2.5.12. In 2017, Marriott's Way was audited for potential accessibility difficulties along the route. Maps are provided on NCC's Norfolk Trails website (<https://www.norfolk.gov.uk/out-and-about-in-norfolk/norfolk-trails/access-tested-walks>), which can be printed off to correspond to photographs and descriptions of the route. The entire route has not yet been audited, only the following sections below, totalling 11 miles, have been assessed for accessibility:

- Norwich to Hellesdon;
- Hellesdon to Drayton;
- Taverham to Attlebridge;
- Attlebridge to Lenwade; and
- Lenwade to Whitwell.

2.5.13. NCC have also released footage of the Norfolk Trails on their Trekker Trails webpage (<https://www.norfolk.gov.uk/out-and-about-in-norfolk/norfolk-trails/trekker-trails>), where the routes were filmed with Google's backpack Trekker camera over the summer of 2018. The Norwich to Aylsham route can be viewed on Google Maps, which allows users to see the nature of the route before visiting.

NMU COUNTS

- 2.5.14. A nine-day NMU survey was commissioned to video the levels of usage on the seven routes that will be severed by the NWL. Four of the nine days were counted by the survey company to cover two weekdays and the weekend, this helps to provide a clear idea of the level of use that the routes are experiencing. The survey period covered Saturday 12th October to Sunday 20th October, with the full classification carried out on the 17th-20th inclusive.
- 2.5.15. Due to the remote location of many of the routes it became difficult to find suitable street furniture to attach the counters to. The counters were therefore located at the access points where they connect with other roads, although this did result in minor risk that users may be missed if they began from the opposite end and did not travel the entire route.
- 2.5.16. The results from the surveys have been analysed and a summary is included below (**Table 2-4**); a full output of the survey results is included in **Appendix E**. The results have been displayed as the average daily two-way flows over the four-day survey period and shows relatively low usage over the Public Right of Way network.

Table 2-4 – NMU Survey Results

Route	Pedal cycle	Equestrian	Motorcycle	Car	LGV, OGV & PSV	Pedestrians – lone adult	Pedestrian – adult with dog (s)	Pedestrian – adult with child	Wheelchair / mobility scooter
Honingham RB1									
The Broadway	0	0	0	13	6	1	1	0	0
Breck Road	5	0	0	66	13	3	0	0	0
Weston Road	7	3	1	60	17	4	1	0	0
Blackbreck Lane	0	1	0	0	0	0	1	0	0
Ringland Lane	32	0	2	260	63	2	0	0	0
Ringland FP1									

Note: Honingham RB1 and Ringland FP1 have not been included, as further survey data is needed at a later date.

2.6 EXISTING PEDESTRIAN, CYCLIST AND EQUESTRIAN FACILITIES BEYOND SCHEME EXTENTS AND LINKS TO COUNTY / STRATEGIC NETWORK

Pedestrian Facilities

2.6.1. The Norfolk Trails website, published by NCC, promotes a number of walking routes suitable for all abilities.

Short and Circular Walks

- Angles Way (Great Yarmouth to Thetford)
- This has been tested for access by NCC along the Burgh Castle stretch of 1.2 miles;
- Norfolk Coast Path, National Trail (Hunstanton to Sea Palling)
- This has been access tested by NCC along four routes: Blakeney Freshers, Gorleston to Great Yarmouth, Haven Bridge to North Denes and Wells Quayside
- The Coast Path has also been uploaded to Google Maps using a Trekker camera;
- Railway Rambles – along the Bittern and Wherry Lines;
- Nar Valley Way (King's Lynn to Gressenhall);
- Paston Way (Cromer to North Walsham);
- Peddars Way, National Trail (Knettishall Heath to Holme-next-the-Sea)
 - The route has been uploaded to Google Maps using a Trekker camera;
- Weavers' Way (Cromer to Great Yarmouth)
 - This has been access tested by NCC along five sections of the route, including North Walsham, North Walsham to Honing, Honing to East Ruston, East Ruston to Stalham and Felmingham to North Walsham;
- Wensum Way (Gressenhall to Lenwade);
- Wherryman's Way (Norwich to Great Yarmouth);
- Burlingham Woodland Walks;
- Health, Heritage ad Biodiversity Walks; and
- Workhouse Walks.

Long Distance Trails

- Norfolk Coast Path, National Trail;
- Marriott's Way;
- Angles Way;
- Boudicca Way (Norwich to Diss);
- Ren Rivers Way (King's Lynn to Cambridge);
- Nar Valley Way;
- Paston Way;
- Weavers' Way;
- Wensum Way (Gressenhall to Lenwade);
- Peddars Way;
- Cross-Norfolk Trail (King's Lynn to Great Yarmouth);
- Wherryman's Way; and
- Three Rivers Way (Hoveton to Potter Heigham)

Proposed Greenways

- 2.6.2. NCC are conducting feasibility studies to look at developing a greenway network across the county, with the aim to extend across Norfolk and link into the Norfolk Trails network of walking and cycling routes. Work on the project began in April 2018, focusing on three disused railways: Weaver's Way between Aylsham and Stalham, King's Lynn to Fakenham and King's Lynn to Hunstanton.
- 2.6.3. Funding was secured in 2019 for work on the Weavers' Way and Norfolk Coast Path, along with new circular walks on the routes. Work will begin in November 2019 and will be completed in March 2020.
- 2.6.4. Broadland District Council published the West Broadland Green Infrastructure Project Plan in January 2018, with the aim to identify a series of green infrastructure opportunities.
- 2.6.5. The report proposed four new greenways:
- Thorpe Marriott Greenway – to develop a footpath within the tree belt and to connect walkers from the Marriott's Way to route north over the Broadland Northway;
 - Drayton to Horsford Greenway – to develop a green corridor linking Drayton Wood to a new green bridge across the Broadland Northway and enhance current connectors;
 - Hellesdon to Drayton Greenway – deliver new greenway connections between Clovelly Close, Hellesdon and the golf course; and
 - South Drayton Greenway – to link Lodge Breck / Fairview Close to Drayton High Road.

Cyclist Facilities

CYCLE ROUTES

- 2.6.6. 11 cycle routes are promoted by Norfolk County Council, including:

Peddars Way

- Much of the route is suitable for cycling, with some of it being on quiet lanes and country roads. However, four sections are not suitable for cyclists: Between the start at Knettishall Heath through to Bridgham Heath, Between South and North Pickenham, between Fring and Ringstead and south of Holme-next-the-Sea.

Weavers' Way

- Two separate cycle rides have been suggested: Stalham to Bengate and North Walsham to Aylsham. The Marriott's Way can also be used to extend the cycle ride in this area.

Bure Valley Path

- The trail meets with the Marriott's Way and Weavers' Way at Aylsham, following the route of the former Great Eastern Railway.

North Norfolk Coast Cycleway

- The path follows the Sustrans National Cycle Network Route 1 from King's Lynn to Wighton and then along the Sustrans regional route 30 through to Cromer.

Norfolk Broads

- 16 routes allow for the Broads to be explored, ranging from 5.5 to 25 miles:
 - 01 Stokesby (Runham, Mautby and Thrigby)
 - 02 Martham (Thurne, Rollesby and West Somerton)

- 03 Clippesby (Thurne, Fleggbugh and Filby Broad)
- 04 Horsey (Sea Palling, Hickling, Potter Heigham and Martham)
- 06 Hickling (Sutton)
- 07 Stalham (Ingham, Honing and Worstead)
- 08 Hoveton (Neatishead, Barton Turf and Horning)
- 09 Horning (Wroxham, Salhouse, Ranworth, South Walsham and Ludham)
- 10 Bungay (Earsham, Ditchingham, Ellingham and Geldeston)
- 11 Bungay (Geldeston, Beccles, Barsham and Ilketshall St Andrew)
- 12 Three River Loop (Loddon, Reedham, Beccles and Geldeston)
- 13 Burgh St Peter Staithe (Aldeby, Toft Monks and Wheatacre)
- 14 Burgh St Peter Staithe (Aldeby, Raveningham, Thurlton and Haddiscoe)
- 15 Yare Valley (Strumpshaw, Cantley and Buckenham)
- 16 Whitlingham (Caistor St. Edmund, Framlingham and Bramerton)

Brecks

- The Angles Way and Peddars Way routes pass through the Brecks and the Brecks Cycling Discovery Route covers 20 miles, starting from Swaffham.

Yare Valley

- The route closely follows the Wherryman's Way from Norwich to Reedham on the southern side of the River Yare. It then crosses to the north at Reedham Ferry and back to Norwich on country lanes.

Three Rivers Way

- The route travels from Hoveton to Horning, covering 2.5 miles.

2.6.7. Within Norwich there are also a number of cycle roads, showing the connectivity in and around the city centre. The map of the routes is shown in **Figure 2-8** below; a full-size copy is also included in **Appendix F**. The map shows busy traffic areas and traffic-free part so the pedalways in the city. St Andrew's Plain is located at the centre of all the routes, providing a starting point for those already in the city centre. The pedalways include:

- Green – Bowthorpe to Broadland Business Park;
- Red – Drayton to Whitlingham;
- Yellow – Lakenham to Aviation Academy;
- Pink – Norfolk & Norwich University Hospital to Heartsease;
- Blue – Wymondham to Sprowston;
- Orange – Inner City Circuit; and
- Purple – Outer City Circuit.



Equestrian Facilities

- 2.6.8. Of the 10 Norfolk Trail routes, a further two are available to equestrians: Peddars Way and Weavers' Way.
- 2.6.9. The Peddars Way forms part of a National Trail, traveling from Knettishall Heath through to the North Norfolk Coast at Holme-next-the-Sea, totalling 46 miles. Combined with the Norfolk Coast Path, it forms the Peddars Way & Norfolk Coast Path National Trail, one of 15 National Trails in England and Wales.
- 2.6.10. The Weavers' Way is a trail mainly used by walkers, but with sections that could be suitable to equestrians. The route covers 61 miles between Cromer and Great Yarmouth, passing stately homes, market towns and farmland.
- 2.6.11. One of the existing equestrian facilities is located on the proposed route alignment, which could impede its ability to carry on operating.

2.7 TRIP GENERATORS

KEY TRIP GENERATORS & Local Amenities

- 2.7.1. The proposed scheme is located to the north-west of Norwich. The area surrounding the proposed scheme is of small villages and hamlets; to the north-west is Lenwade, Weston Longville and Attlebridge; to the east and south-east are Horsford, Drayton, Ringland, and Costessey; and to the south-west there is Hockering and Mattishall.
- 2.7.2. Land uses that are considered to be attractive to pedestrians, cyclists and equestrians are shown below.

Within the Study Area

- Key Settlements: Attlebridge, Costessey, Drayton, Hockering, Horsford, Lenwade, Mattishall, Ringland, Taverham and Weston Longville;
- Royal Norfolk Showground;
- Longwater Shopping Centre;
- Secondary Schools: Taverham High School and Costessey High School;
- Taverham Garden Centre;
- ROAR Dinosaur Adventure Park;
- Places of Worship: St Mary's Hockering, St Michael's Hockering, St Margaret's Drayton, St Edmund Taverham, etc.;
- Equestrian Centres;
- Village Halls;
- Post Offices;
- Food Stores;
- Supermarkets and convenience stores;
- Golf Courses and Clubs;
- Country Houses;
- Waterways: Rivers Wensum, Tud and Yare; and
- Open spaces, such as parks: Ringland Hills.

In the surrounding area

- Costessey Park and Ride;
- Norfolk and Norwich University Hospital;

- Riverside Shopping Centre;
- Intu Chapelfield Shopping Centre;
- Castle Quarter Shopping Centre;
- Norwich Train Station;
- University of East Anglia;
- Norwich City Football Club;
- Norwich Airport; and
- Norwich City Centre.

FUTURE TRIP GENERATORS

2.7.3. The documents reviewed in **Section 2.2**, set the planning strategy for the future of the wider Norwich area. The major development areas within the study area are:

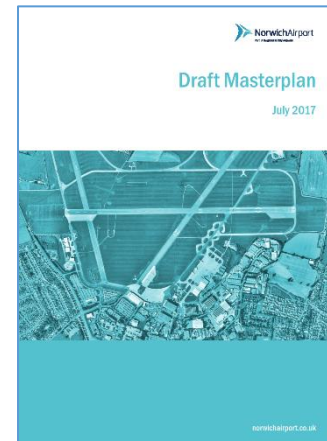
Easton Food Enterprise Park / Zone

- 46 acres of land has received planning permission for a food enterprise zone to encourage and support food production, processing and agriculture. The FEP adjoins the A47, with works included in the development to dual the single carriageway section of the A47 between North Tuddenham and Easton to accommodate the growth forecasted for the FEP.
- The Local Development Order will support the following businesses: Agri-tech, processing of agricultural produce, manufacture of food products, storage and distribution of agricultural produce, food technology companies, food-related suppliers and haulage services related to agriculture and food companies.



Norwich Airport

- In 2017 Norwich Airport released a Draft Masterplan setting out their vision for the airport’s continued growth over the next 30 years. The airport’s vision is to be “the passenger airport of choice for Norfolk, Suffolk and adjoining counties; a leading provider of aircraft maintenance, repair and overhaul services; a supplier to the oil and gas industry and a location for business growth”. To provide for growth to 2030, there will be:
 - An expansion of the existing terminal;
 - Exploring the need to lengthen the operational hours for the scheduling of flights beyond 23:00 for four days a week in the summer months;
 - Increased passenger parking provision; and
 - A proposed 500m extension to the eastern runway to accommodate larger aircraft.



University of East Anglia

- The 2030 Vision for UEA, involves investing £300 million in the campus and the creation of a 7-storey ‘Sky House’, as a new academic building. The building will be on the site on the current car park and will involve the removal of approximately 260 spaces. To mitigate the loss in spaces, the University has improved the current Park & Ride service from Costessey and from September 2019 there will be an improved service from Watton and

Dereham which will serve Newmarket Road. Construction of the Sky House is expected to begin in 2020, with a targeted completion date of May 2022.

Greater Norwich Local Plan

- The new joint plan is being produced by Broadland District Council, Norwich City Council and South Norfolk Council, working together with Norfolk County Council through the Greater Norwich Development Partnership. The plan aims to meet the local housing and economic growth needs, whilst also protecting and enhancing the natural environment. A public consultation was held until December 2018 where interested parties could voice their views on the proposed plans. From January 2020, the Stage C Regulation 18 Draft Plan Consultation will be held, which will include the preferred planning strategy for the areas to 2036 and the preferred site that will be allocated to achieve the strategy. The plan is expected to be adopted in late 2021.
- Within the Site Proposals document, initial sites have been put forward to be included in the local plan:
 - Land east of Drayton Lane and north of Hall Lane, Drayton – 273 dwellings
 - Honingham Thorpe, Norwich Road, Honingham – 360.96ha allocated for a mixed-use development
 - Land off Reepham Road, Horsford – 150-200 dwellings
 - Reepham Road / Holt Road, Horsford – 36.6ha allocated for residential development and employment
 - West of Reepham Road, Horsford – 128-192 dwellings
 - Land adjacent to Drayton Lane, Horsford – 136-200 dwellings
 - Land adjacent Drayton Lane, Horsford – 326-489 dwellings
 - Land at Holly Lane / Reepham Road, Horsford – 750 dwellings
 - Land to the east of Holt Road, Horsford – 266 dwellings
 - Land adjacent to Beech Avenue Business Park, Ringland Road, Taverham – 150-200 dwellings
 - Land between Fir Covert Road and Reepham Road, Taverham – 1,400 dwellings
 - Anglia Square, Norwich – 1,500 dwellings and 20,000m² retail space
 - Land off Watton Road, Barford – 117 dwellings
 - Land off Bawburgh Lane and New Road, Bawburgh – 50ha for residential development
 - Land to the north-east of Town House Road, Costessey – 11.39ha for residential development
 - Land to the South of Cleves Way / East of Longwater Lane – 17.82ha for housing
 - Costessey Landfill Site, and adjoining land, Dereham Road, Costessey – 47ha for mixed-use
 - Land to the north of Tuttlles Lane East, Wymondham – 54ha for residential development
 - North-east Wymondham – 195ha for mixed use development of up to 1,600 dwellings

Joint Core Strategy for Broadland, Norwich and South Norfolk (JCS)

- The JCS was published in 2014 to set out the long-term vision of the Greater Norwich Development Partnership and to identify broad locations for new housing and employment growth. The plan looks ahead to 2026, where a forecasted need for 36,820



dwellings are expected. Key sites allocated for over 1,000 dwellings in or near the study area are:

- Easton and Costessey – 1,000 dwellings
 - Three Score, Bowthorpe – 1,200 dwellings
 - Old Catton, Sprowston, Rackheath and Thorpe St Andrew – 7,000 dwellings
 - Hethersett – 1,000 dwellings
 - Cringleford – 1,200 dwellings
- Key sites allocated for over 5ha of employment land in or near the study area are:
- Norwich Research Park – 55ha
 - Taverham – 6ha
 - Longwater Employment Park – 13ha
 - Norwich Airport Area – 30ha

2.8 SITE VISIT

17TH September 2019

- 2.8.1. An initial site visit was carried out on Tuesday 17th September, by the Project Assessors, Hattie Gibbs and Paula Cuthbertson, accompanied by Zeyna Soboh (NWL Design Coordinator, WSP) and Philip Clark (Associate, WSP), within the study area of the proposed NWL alignment. The site visit consisted of a walkover along the Public Rights of Way (PROWs) that are likely to be severed or impacted by the proposed route alignment. The analysis also focused on the level of use the routes were receiving and any safety, maintenance or wayfinding concerns were noted.
- 2.8.2. The proposed route alignment will sever seven existing PROWs or routes and so the site visits focused on walking these routes shown in **Figure 2-9**.

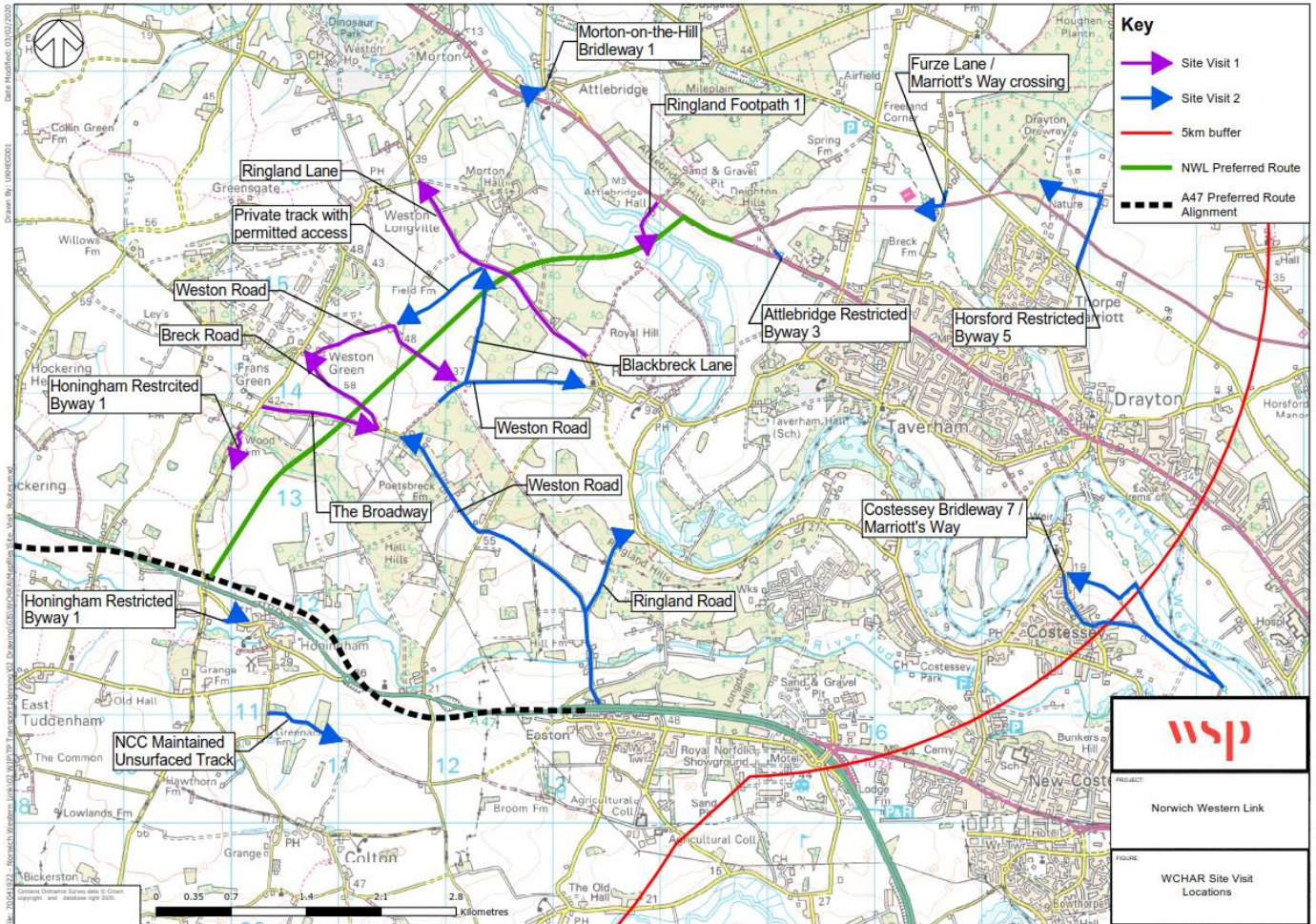


Figure 2-9 - Site Visit Locations - Routes Severed by NWL

Site 1 – Honingham Restricted Byway 1

- The restricted byway can only be accessed off the B1535 (**Figure 2-10**), which has a speed limit of 60mph. There is no footpath provision along the B1535 to the byway; pedestrians are having to use the narrow verges or walk on the carriageway to access it (**Figure 2-11**).



Figure 2-10 – Site 1, B1535 looking south



Figure 2-11 – Site 1, B1535 narrow verges

- The site walkover included walking the byway route. Wayfinding proved quite difficult as there was no signage or tracks to show where the route was. There is a kissing gate enabling entrance off the B1535 (**Figure 2-12**), yet no further infrastructure was noted. The gate does not enable access for cyclists or equestrians.



Figure 2-12 - Site 1, Kissing gate at byway entrance

- Through the gate, dilapidated barns are located (**Figure 2-13**), as well as some farms tracks along the field boundary (**Figure 2-14**), yet there were no signs of use for the byway. Tall grasses surrounded the fields (**Figure 2-15**), with no recent routes cut through; it was not clear whether users were on private property or on the byway. The route appeared to be potentially unsafe in its present state.



Figure 2-13 - Site 1, View south from kissing gate



Figure 2-14 - Site 1, vehicle tracks, 30m west of kissing gate



Figure 2-15 - Site 1, Tall grass limits access to the byway

- Heading back towards the B1535 from the restricted byway, East Tuddenham Footpath 1 is located to the west of Wood Lane. This was investigated to see how improvements to the byway may influence the footpath.
- At the entrance to the footpath, the footpath sign is visible on the fence post (Figure 2-16), however, the path was blocked by fallen branches and detritus (**Figure 2-17**).



Figure 2-16 - Site 1, East Tuddenham Footpath 1



Figure 2-17 - Site 1, Footpath blockage

Site 2 – The Broadway

- The Broadway is a single-track country lane, heading east from Paddy’s Lane. There are few passing places, yet the speed limit of the lane is 60mph. The road is narrow and is lined with mature trees and the gradient increases further east (**Figure 2-18**).

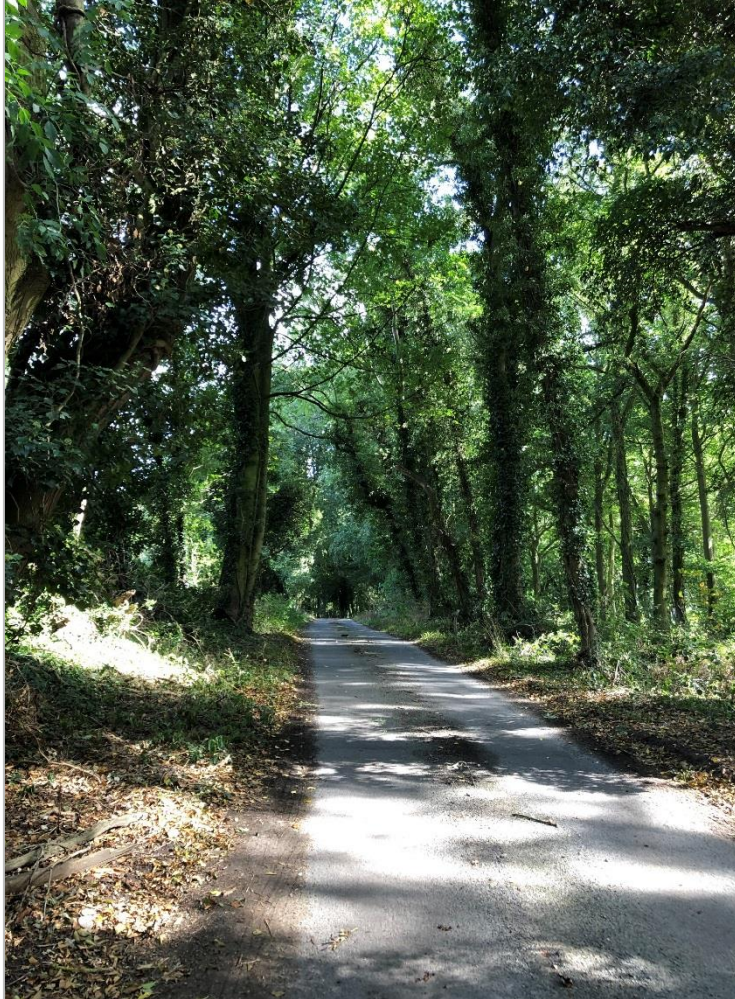


Figure 2-18 – Site 2, The Broadway heading east

- No vehicles travelled on the Broadway during the site visit, possibly due to the narrowness of the route. There appears opportunity to encourage use of the Broadway by pedestrians, cyclists and equestrians, due to its picturesque nature and apparent light traffic use.
- Approximately 1km east from the junction with Paddy's Lane, the Broadway intersects with Breck Road. A priority junction on the Broadway allows for access onto Breck Road, although the layer of detritus on the ground suggests that this is used infrequently (**Figure 2-19**).



Figure 2-19 – Site 2, Priority junction from the Broadway (east), onto Breck Road

Site 3 – Breck Road

- Breck Road intersects with the Broadway to the east (Figure 2-20).
- Breck Road is of a similar standard to that of The Broadway, however, it is not lined by trees and so provides views of the wider countryside.
- There was evidence of use by pedestrians and equestrians, Figure 2-21, as well as use by vehicles, which suggests that Breck Road is used more frequently than The Broadway.
- There is no footpath provision and little space on either side of the road to act as passing places for vehicles or non-motorised users (Figure 2-22).



Figure 2-20 - Site 3, Breck Road / The Broadway junction



Figure 2-21 - Breck Road heading west



Figure 2-22 - Site 3, Narrowness of Breck Road

- Towards the western end of Breck Road, there are signs possibly placed by local residents, to 'Please slow, cats about' (**Figure 2-23**) and to 'Please slow, hedgehogs crossing' (**Figure 2-24**) This highlights that local residents are aware of traffic and speed issues and are encouraging efforts to reduce it.



Figure 2-23 - Site 3, Speed warnings for cats



Figure 2-24 - Site 3, Speed warnings for hedgehogs

Site 4 – Weston Road (Unclassified Road)

- Assessors walked down Breck Road to the junction with Weston Green Road, then onto the unclassified road to the east of Weston Green (**Figure 2-25**).
- The road was narrow, with few passing places and farm accesses (**Figure 2-26**).
- There was evidence of use by pedestrians, cyclists and equestrians (**Figure 2-27**), as well as a number of vehicles – likely local traffic.
- There were no footways and users would find it default to pass vehicles due to the narrow space.
- A riding school is located on the unclassified road, suggesting that the road is a frequent route used by equestrians.



Figure 2-25 - Site 4, Junction with Weston Green Road, looking west



Figure 2-26 - Site 4, Narrow road, with few passing places



Figure 2-27 – Site 4, Unclassified Road heading east

Site 6 – Ringland Lane

- This is a narrow, rural road with intermittent passing areas, similar in condition to the other roads observed, however, this was used far more frequently by vehicles, compared to the other roads observed during the site visit (**Figure 2-28**).
- There was farm / land access off the road, which were clearly used by tractors and other heavy machinery to access the fields on either side of the road (**Figure 2-29**).
- There is a grass verge either side of the carriageway, in some locations, only on one side of the road, which made it possible to walk along the length of the road; no walkers or cyclists were observed during the site visit (**Figure 2-31**).
- The topography slopes upwards towards the south and the roadside varies from dense woodland to open agricultural land on either (**Figure 2-30**).



Figure 2-28 - Site 6, Passing place on Ringland Lane



Figure 2-29 - Site 6, Farm access off Ringland Lane



Figure 2-30 - Site 6, Variety of landscapes along Ringland Road



Figure 2-31 – Site 6, Ringland Lane heading south-east

Site 7 – Ringland Footpath 1

- The footpath is accessed (**Figure 2-32**) from the busy junction on the A1067 Fakenham Road and leads down the Old Hall Farm driveway, past a farm building, across two timber planks over a watercourse filled with blue-green algae, to a gated field (**Figure 2-33** and **Figure 2-34**); which at the time of visiting contained livestock (cows).
- Across the first field is a timber footbridge which crosses the River Wensum. The footbridges are clearly for able-bodied walkers and would not be practical for elderly or disabled users (**Figure 2-35**).
- The main footbridge was situated beside a ford gated on the northern side – which is clearly used as an access across the River Wensum for vehicles as there is no aquatic vegetation present at this location (**Figure 2-36**).
- Once over the footbridge, another gate is visible diagonally across the field, although a clear path was not visible or trodden at the time in the knee-deep grass (**Figure 2-37**).



Figure 2-32 – Site 7, Ringland Footpath 1, heading south-west



Figure 2-33 - Site 7, Narrow bridge across watercourse



Figure 2-34 - Site 7, Algae-filled watercourse



Figure 2-35 - Site 7, Footbridge across the River Wensum



Figure 2-36 - Site 7, Gated ford



Figure 2-37 - Site 7, Footpath through open field

2.8.3. The results gathered from this visit have helped to inform a second site visit, which looked at routes away from the proposed highway alignment, but within the study area.

5th November 2019

2.8.4. The second site visit was on Tuesday 5th November 2019 was attended by Hattie Gibbs and David Minshall. On this visit, wider sustainable travel connections were explored to consider the linking of NWL with walking, cycling and horse riding facilities further afield. The figure below shows the location of the areas surveyed.

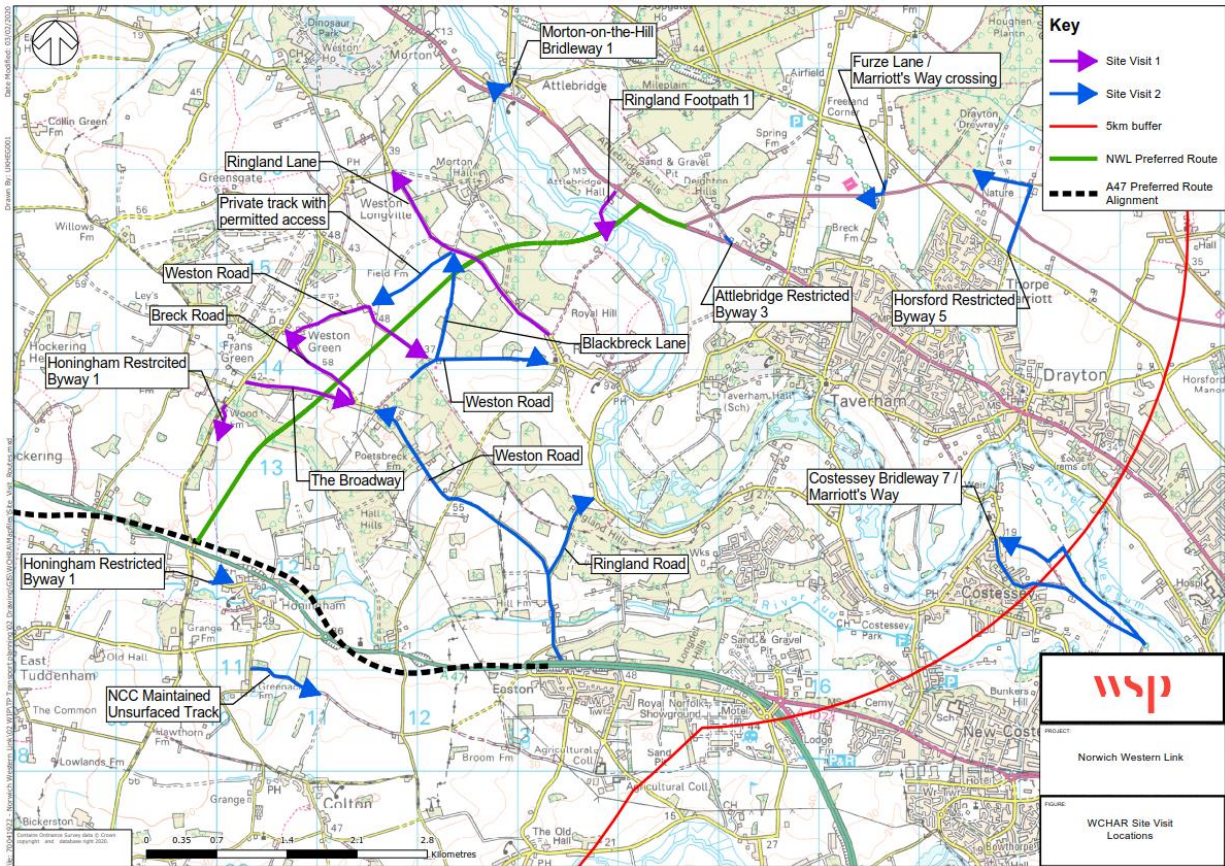


Figure 2-38 – Second site visit survey locations

Costessey BR7

- 2.8.5. To the east of the study area, BR7 connects Costessey to the Marriott’s Way. The bridleway was accessed from good footway provision on St Edmunds Close and is signed at the beginning of the route (**Figure 2-39**).
- 2.8.6. The route consists of a well-trodden track, with good signage pointing to the Marriott’s Way connections further ahead (**Figure 2-40**).
- 2.8.7. Along the route, pedestrians and cyclists were passed, evidencing the use the bridleway receives.



Figure 2-39 - Costessey BR7 wayfinding signage



Figure 2-40 - Costessey BR7 Marriott's Way signage

Marriott's Way

- 2.8.8. Across a track along a field boundary, the Marriott's Way is signed from BR7 which allows for travel to Norwich City Centre in the east.



Figure 2-41 - Marriott's Way

- 2.8.9. The route consists of an unsurfaced track, with clear evidence of use by pedestrians, cyclists and equestrians.



Figure 2-42 - Marriott's Way pedestrian use



Figure 2-43 - Marriott's Way cyclist use



Figure 2-44 - Marriott's Way equestrian use

- 2.8.10. Accesses on Costessey Lane were investigated to see the nature of the crossing facilities present for users. **(Figure 2-45)** shows that there are no crossing facilities present, however, there is clear signage of the cycle route towards Norwich and Costessey **(Figure 2-46)**. On Ordnance Survey mapping, it appears that Marriott's Way continues up Station Road, after crossing Costessey Lane, however, this was not seen on the ground, with no signage pointing in that direction. Users were instead directed to use Costessey Lane and use other connections to return to the Marriott's Way.



Figure 2-45 - No crossing facilities on Costessey Lane



Figure 2-46 - Marriott's Way signage on Costessey Lane

Costessey BR8

- 2.8.11. The bridleway intersects the Marriott's Way, although it is not made particularly clear the route is a public right of way (through the opening between the gate (pictured, **Figure 2-47**)), however a route marker has been placed beyond the gate, on the right-hand side to direct users (**Figure 2-48**).



Figure 2-47 - Costessey RB8



Figure 2-48 - Costessey RB8 signage marker

- 2.8.12. The route begins as being very narrow (**Figure 2-49**), but gradually widens out towards the west. There was evidence of use by equestrians (**Figure 2-50**), cyclists and pedestrians, and better signage would help to direct more users.



Figure 2-49 - Costessey RB8 narrow width



Figure 2-50 - Use of Costessey RB8 by an equestrian

Broadland Northway Crossings

Horsford RB5

- 2.8.13. RB5 is accessed from Reepham Road, Horsford. Good signage at the beginning of the route informs users that the RB connects to cycle routes to Drayton and Thorpe Marriott (**Figure 2-51**).
- 2.8.14. The route is of a very high standard, due to its recent creation as part of the Broadland Northway construction, and the parapet is of a good height, approximately two metres, although this could be raised for equestrians (**Figure 2-52**).
- 2.8.15. There was evidence of use by equestrians, cyclists and pedestrians, so the route is well used and there is knowledge of it. The route is also used by farm traffic, and during the site visit was seen to be used by construction plant.



Figure 2-51 - Horsford RB5 wayfinding signage



Figure 2-52 - Horsford RB5 bridge parapet

Furze Lane

- 2.8.16. From Furze Lane, a bridge crossing the Broadland Northway (**Figure 2-53**), as part of the Marriott's Way was accessed. The route is of a very high standard, with clear signage (**Figure 2-54**), again possibly due to the construction of the Broadland Northway.



Figure 2-53 – Marriott's Way bridge, access from Furze Lane

- 2.8.17. Signage points towards onward bridleway connections, however, these routes are not yet shown on the definitive map (**Figure 2-55**).



Figure 2-54 – Marriott's Way bridge signage, access from Furze Lane



Figure 2-55 – Marriott's Way bridge crossing, further bridleway connections

Attlebridge RB3

2.8.18. Access was attempted to the RB3 from Fakenham Road, however, it now appears that the route is closed to the public, and only private access is permitted. This either needs to be investigated if it is indeed still a public right of way or removed from the definitive map.

Morton-on-the-Hill BR1

2.8.19. Through engagement with stakeholders, the bridleway and nearby bus stops were investigated on Fakenham Road. The bus stops are the only stops for Attlebridge and the wider community, travelling along the A1067.

2.8.20. The access from Station Road is very narrow and would be easy for cyclists or equestrians to negotiate (**Figure 2-7**).



Figure 2-56 – Entrance to BR1, from Station Road

2.8.21. The route has a good surface; however, tree branches are very low and need cutting to avoid hitting users (**Figure 2-57**).

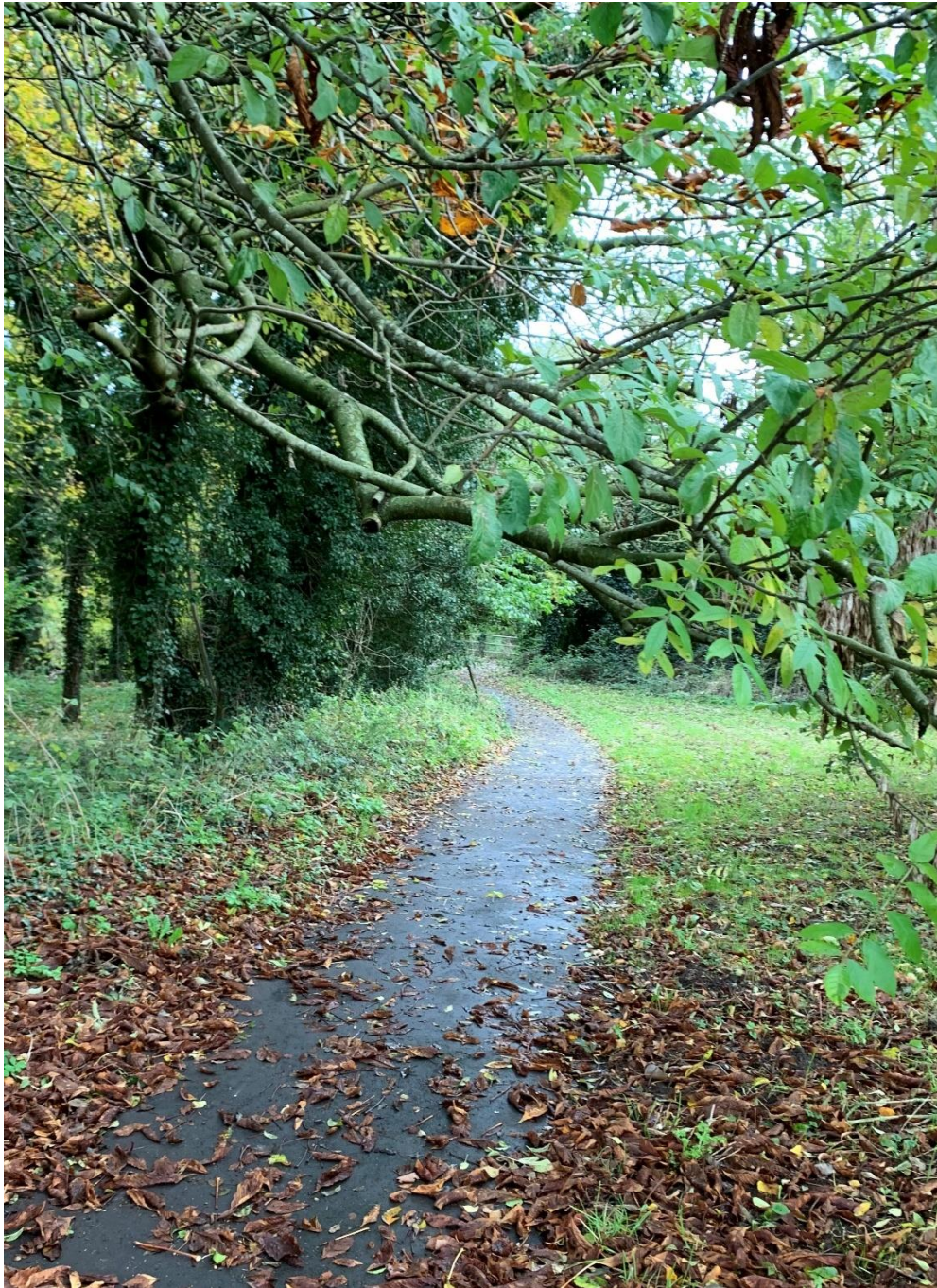


Figure 2-57 – RB1 from The Street

- 2.8.22. The bus stops along the A1067 were visited and it was seen that the stop on the eastbound side towards Norwich has no footway, which could be added to improve connectivity with RB1 (**Figure 2-58**).
- 2.8.23. On the westbound side, there is no shelter, and users have to cross the busy A1067, with no formal crossing provision (**Figure 2-59**).



Figure 2-58 – Eastbound bus stop



Figure 2-59 – Westbound bus stop

Route 5 – NCC Maintained Unsurfaced Track – Blackbreck Lane, and permissive link

- 2.8.24. Route 5, as identified on the study area map, will be severed by NWL. Assessors walked the route and back along permissive link towards Weston Green, which was referred to during stakeholder consultation.
- 2.8.25. The start of the route is very narrow (**Figure 2-60**) and comprises loose sandy material presenting possible difficulties for cyclists, although there were clear signs of use by pedestrians, equestrians and cyclists. The route begins to widen further along, until it opens into fields; **Figure 2-61** shows where the NWL corridor is likely to pass through the route.
- 2.8.26. The route continues down a gentle decline towards Ringland Road, where a permissive route is available that follows the field boundary back towards Weston Road (**Figure 2-62**). There was evidence of use by equestrians and pedestrians. The route is narrow in areas but opens up to support use by all modes; there is evidence of potential miss-use of this section by powdered two-wheeler riders. It would be beneficial if this was made a permanent public right of way to create better connectivity with surrounding routes.
- 2.8.27. The entrance from Weston Road is well hidden and signage would help to direct more users (**Figure 2-63**).



Figure 2-60 – Route 5, from Weston Road



Figure 2-61 – Route 5, where the NWL is likely to align



Figure 2-62 – Permissive route, from Ringland Lane



Figure 2-63 – Permissive route, from Weston Road

Honingham RB1

- 2.8.28. RB1 was visited on the first site visit through an access on Wood Lane, however it was not clear then where the route went. On 5 November RB1 was visited from the southern side - Dereham Road.
- 2.8.29. On both occasions, there were no clear signs of use; to the north there was no wayfinding signage, however **Figure 2-64** shows that signage is present on Dereham Road, but no route is present in the fields (**Figure 2-65**).



Figure 2-64 – Signage for RB1 on Dereham Road



Figure 2-65 – RB1 looking north towards A47

NCC Maintained Unsurfaced Track, south of A47

- 2.8.30. The track was visited, following comments during the Sustainable Transport Workshop and shown in the map marked up by Rob Holl, **Appendix B**. The track was accessed from Colton Road and creates a good route to the south of the A47 to connect with Easton. There was evidence of use by pedestrians and cyclists **Figure 2-66**, however, a fallen tree blocked the track (**Figure 2-67**) – this needs to be removed.



Figure 2-66 – NCC Maintained Unsurfaced Track, entrance from Colton Road

- 2.8.31. The track of a good size for use by all sustainable modes, similar to that of the Marriott's Way and provides a quiet route towards Norwich. If a safe crossing point was provided on the A47 this would provide a suitable route for sustainable travel and make the existing public right of way more connected.



Figure 2-67 – NCC Maintained Unsurfaced Track, tree debris blocking track

3 Engagement & CONSULTATION

3.1 KEY STAKEHOLDERS

- 3.1.1. Stakeholder engagement has been a core part of the Norwich Western Link project from conception, allowing for local residents and experts in their fields to comment on proposals and provide local insights. The following parties were approached for consultation; **Table 3-1** details the level of engagement with each stakeholder.

Table 3-1 – Stakeholder Engagement Timeline

Date	Stakeholder
18 th October 2019 24 th January 2020	Norfolk County Council Public Rights of Way Officers
18 th October 2019 24 th January 2020	Norfolk County Council Highways
18 th October 2019 19 th November 2019 24 th January 2020	Highways England and contractors
9 th December 2019 24 th January 2020	Public Transport Operators – Bus

Norwich Western Link Stakeholder Workshop 1

- 3.1.2. On Friday 18th October 2019, WSP organised alongside NCC colleagues a stakeholder engagement workshop to gain understanding of what measures non-motorised user groups would like packaged with NWL. Representatives of the following groups were in attendance:
- Norfolk Horse Driving Club;
 - Norwich Cycle Campaign;
 - NCC Countryside Access;
 - Norfolk Local Access Forum;
 - Ramblers;
 - Pathmakers;
 - NCC Passenger Transport;
 - Galliford Try;
 - Sweco;
 - Konectbus; and
 - Highways England.
- 3.1.3. A representative from Sustrans was not able to attend on the day, but was able to provide feedback from their point of view, via email (**Appendix G**):
- Sustrans supported NCC for the Broadland Northway and would urge NWL to encourage active travel by continuing the infrastructure for active travel around the western link with tarmac surfaced paths separated from the traffic with wide verges/ landscaping.

- Sustrans would be surprised if many horse riders would make use of the routes provided on the NDR due to the proximity and speed of the traffic. It is therefore encouraged that signing with blue way markers is used, as has been successful with the Marriott's Way.
- The at-grade crossings on the NDR are unsafe. If NWL is seeking to increase active travel for commuting, leisure and healthy activity, bridge crossings are encouraged on the routes and desire lines.
- Sustrans would be happy to help contribute to early designs to improve the design of the project.

3.1.4. The workshop was split into two main sections – an initial overview was given of the project, then attendees split into groups with facilitators: Zeyna Soboh, Paula Cuthbertson, Philip Clark & Rob Holl. Summarised below are the comments created from the discussions.

Group 1, Facilitated by Zeyna Soboh, NWL Design Coordinator, WSP & Paula Cuthbertson, NWL Stakeholder Manager, WSP

- A safe crossing is needed at A1067 for Weston Longville;
- Access to the Marriott's Way is important and wayfinding should be considered for installation, to help users find it;
- There is unofficial access through private land near Field Farm, attendees questioned whether this could be formalised;
- Locals would support the closure of locations 2, 3 and 4 to vehicles, although Ringland Lane was noted as being the most used by vehicles;
- The A47 Byway and Wood Lane junction is very dangerous and people avoid this (anecdotal) – suitable provision is needed here, such as an underpass;
- An opportunity to downgrade the existing north-south route (Honingham Road / Paddy's Lane) to be more pleasant for walking and cycling;
- A general consensus was agreed that north-south travel was recreational and east-west travel was for commuting i.e. to Norwich;
- A further consensus was reached that a full route along the length of the NWL scheme may not be well utilised and so would prefer enhancement to existing routes for a better experience;
- Ringland Woods is a key destination for walkers;
- There is a route west of the scheme from Weston Longville to Morton Hall which is popular, but not formal, which needs to be enhanced; and
- The A47 creates huge severance and people do not attempt to cross it.

Group 2, Facilitated by Rob Holl, NWL Client Senior Engineer, NCC

- The route on Ringland Road from Taverham across the River Wensum is steep, but useable; any improvement would be appreciated;
- A link from Queens Hills to the Marriott's Way and further walking connections;
- Reinstate a new / improved crossroads to the east of the A47 Easton roundabout for better connectivity, especially with the Norwich cycle route map.
- The NCC Maintained Unsurfaced track route to the south of the proposed A47 dualling alignment in Colton is well used, but includes some poor bridleways that need improvement;
- In Honingham, a crossing or connection with the Restricted Byway 1;
- Propose an underbridge of the A47 for Church Lane / Sandy Lane to increase connectivity;
- A new crossing is needed for Fox Lane, east of North Tuddenham;

- A track is present east of Field Farm, with permitted access from the landowner to continue the route to Ringland Lane – formal agreed access to this route would be appreciated;
- The junction of the A1067 and B1535 in Lenwade has crossing provisions, but this needs improvement; and
- The Junction of Marl Hill Road with the A1067 is sufficient but could be improved.

3.1.5. The plan shown in **Figure 3-1** below captured the comments discussed between Rob Holl and representatives of Norwich Cycling Campaign. The following colour codes have been used on the plan:

- Pink – already used routes (although they may need some improvement)
- Green – missing links / links to be improved
- Red – comments / crossing that needs to be introduced / improved
- Yellow – potential links

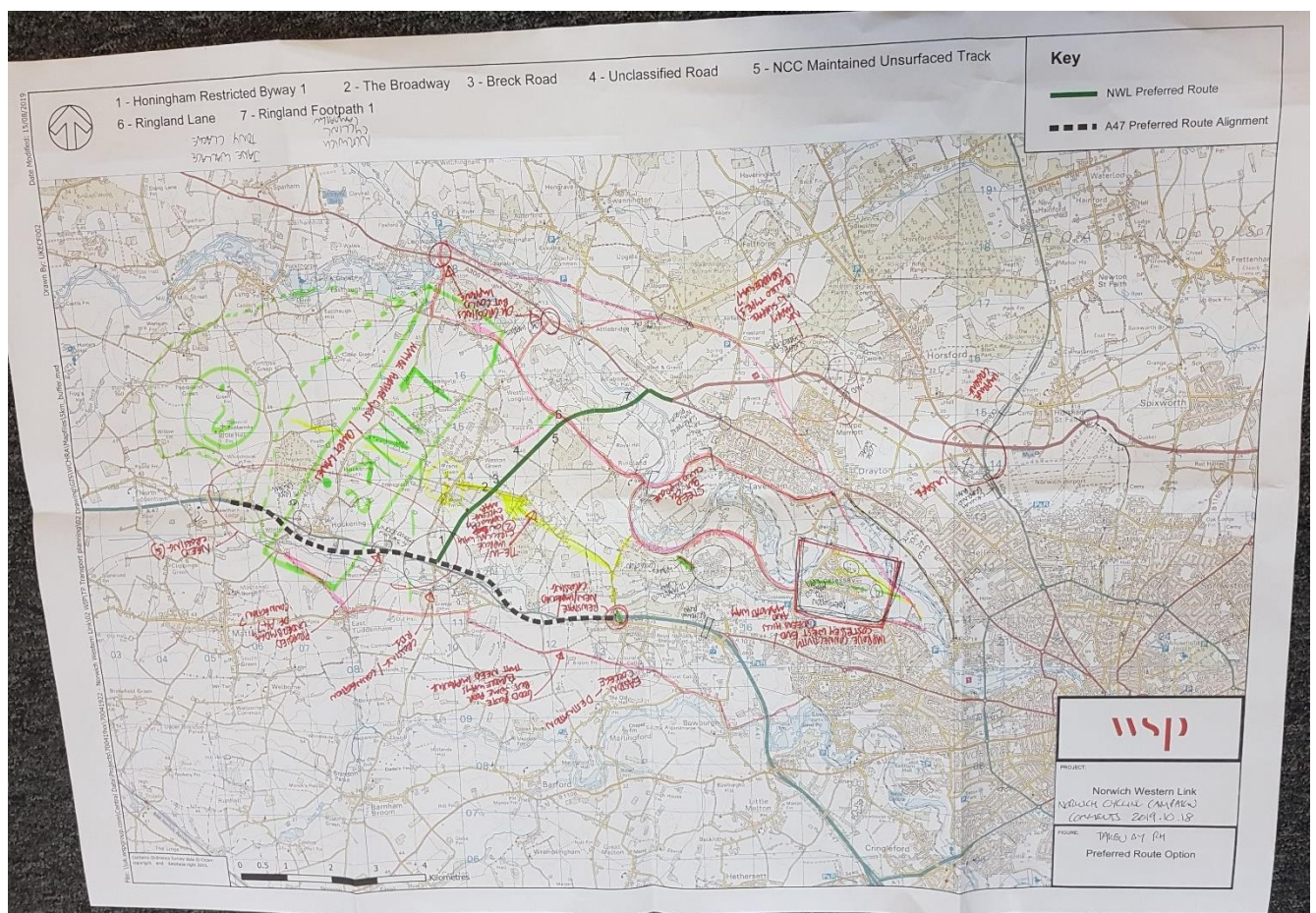


Figure 3-1 – Stakeholder Workshop, marked-up plan

- 3.1.6. A questionnaire, similar to that used at the NWL LLG meeting on 17th September, was distributed at the end of the workshop to gain understanding of how members or users of the groups currently use the routes that will be severed by NWL and how they would like to see them improved, if possible. A copy of this questionnaire is included in **Appendix H**.
- 3.1.7. The following questions were included in the questionnaire, split into ‘Existing Use’, ‘Barriers to Use’ and ‘Future Use and Enhancement’ sections;

- Question 2: What are the key origins and destinations that are accessed by your members / user by non-car modes in the west of Norwich? What routes do people currently take to get there?
- Question 3: Are any of the following routes crossed by the NWL currently well used or important in the local area for your users / members? If so, how are these currently used and by whom?
- Question 4: What do you feel are the main barriers to your members / users from walking / cycling, horse-riding / using public transport more in the area? Please number the top three barriers for each mode where 1 is the most significant barrier.
- Question 5: How do you think the NWL will affect travel behaviour for local users?
- Question 6: What journeys would a significant number of your members / users want to make on foot or by bike (e.g. to local amenities, bus stops, recreational areas, neighbouring communities, retail and employment sites) and what measures would help to support them to do this?
- Question 7: What sustainable transport improvements do you think should be prioritised for being packaged with the NWL scheme to better support people travelling by non-car modes?
- Question 8: Are there any gaps in the walking / cycling / horse-riding network that could be improved for better connectivity?
- Question 9: Some existing routes within the study area will be crossed by NWL; what is your preference for their treatment?
- Question 10: What improvements to public transport services, routes and infrastructure do you think would help make bus travel more attractive for your members / users?
- Question 11: How do you feel the existing Public Rights of Way could be enhanced?
- Question 12: If future changes to the road network, including the Norwich Western Link and A47 dualling were to contribute to an increase in traffic on roads in the study area, so you have any suggestions of potential measures that could help to mitigate traffic impacts of the NWL?

Stakeholder Responses

3.1.8. The following organisations and user groups filled in the questionnaire;

- Norwich Cycling Campaign;
- British Horse Driving Society;
- Norfolk Ramblers;
- Konectbus;
- Pathmakers;
- NCC Countryside Access Officer (PROW); and
- Norfolk Local Access Forum.

Question 2

The seven responses produced a list of key destinations and routes for users, as shown in **Table 3-2**.

Table 3-2 – Key destinations and routes used by user groups

Key destinations and routes
Norwich to Lyng
Costessey
Ringland
Barnham Broom to Ringland
Barford to Ringland
Taverham to Lyng
Costessey to Lyng
Bawburgh
Barford to Ringland
Colton

- 3.1.9. Four bus services were highlighted as key means to access the area: 4, 8, 510 and 511 operated by Konectbus, which allow for journeys to Dereham, Norwich City Centre, UEA and NNUH. The responses show that within the study area there are a number of destinations that users wish to access, and the NWL can help to facilitate this. The destinations are mainly to the north and south of the study area, which supports the proposal of the NWL to improve journeys to the west of Norwich.

Question 3

- 3.1.10. Some respondents did not fill in an answer to the question, however, from those that did, it was clear that walking was the main mode used across all seven of the severed routes. **Table 3-3** shows that the greatest number of user groups frequently used Route 5 and Route 7 which will be severed by the NWL. The routes that received the highest report of use by cyclists were Route 5, 6 and 2, suggesting that the routes are used to create a longer journey for enthusiasts.

Table 3-3 – Use of severed routes by various modes

All areas	Walk	Cycle	Riding	Driving
Route 1 - Honingham Restricted Byway 1	1	1	0	0
Route 2 - The Broadway	2	2	1	0
Route 3 - Breck Road	2	1	1	0
Route 4 - Unclassified Road	3	1	1	0
Route 5 - NCC Maintained Unsurfaced Track	4	3	2	1
Route 6 - Ringland Lane	1	2	1	0
Route 7 - Ringland Footpath 1	4	0	0	0

Question 4

3.1.11. This question seeks to identify what the main barriers are towards the use of sustainable travel, split by the four modes of walking, cycling, bus or riding.

3.1.12. The graphs below show the results from each user group, split by mode.

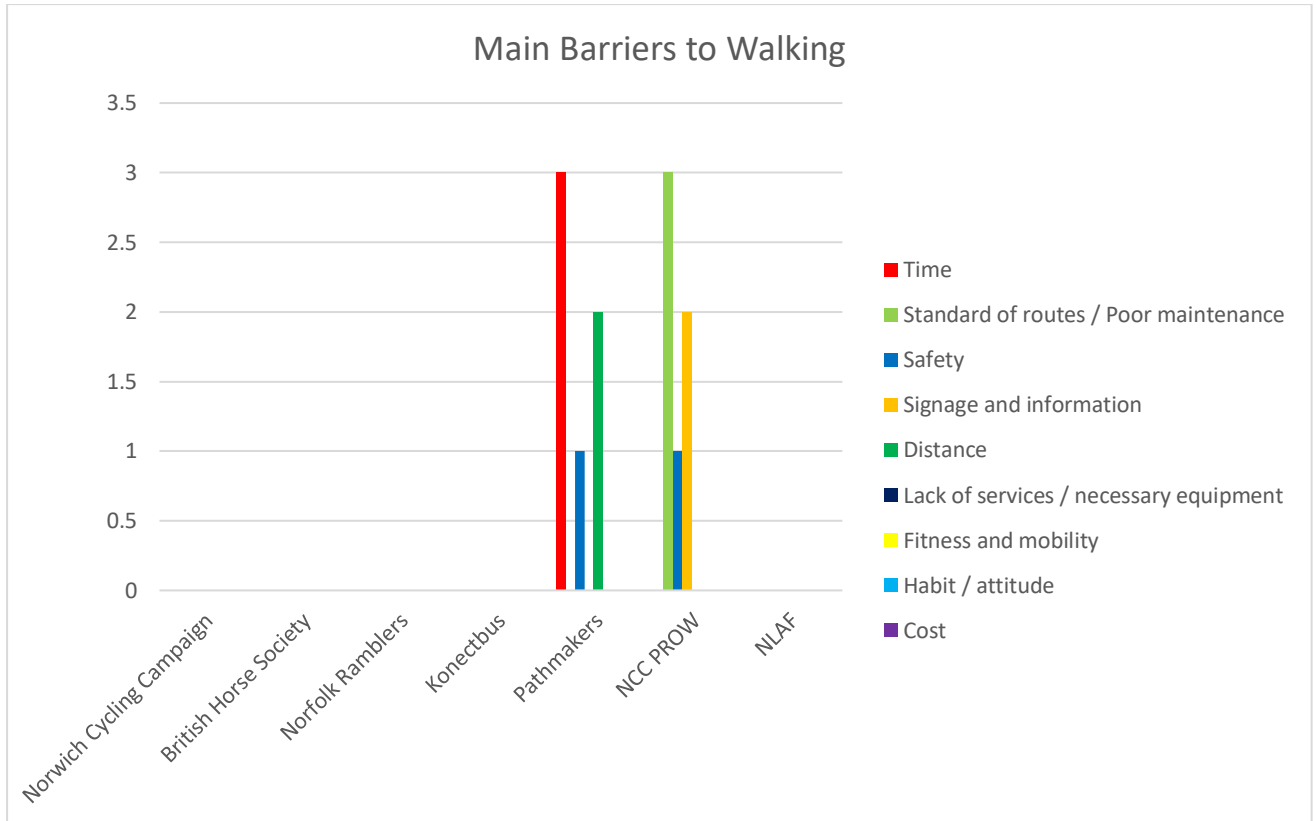


Figure 3-2 - Main barriers to walking

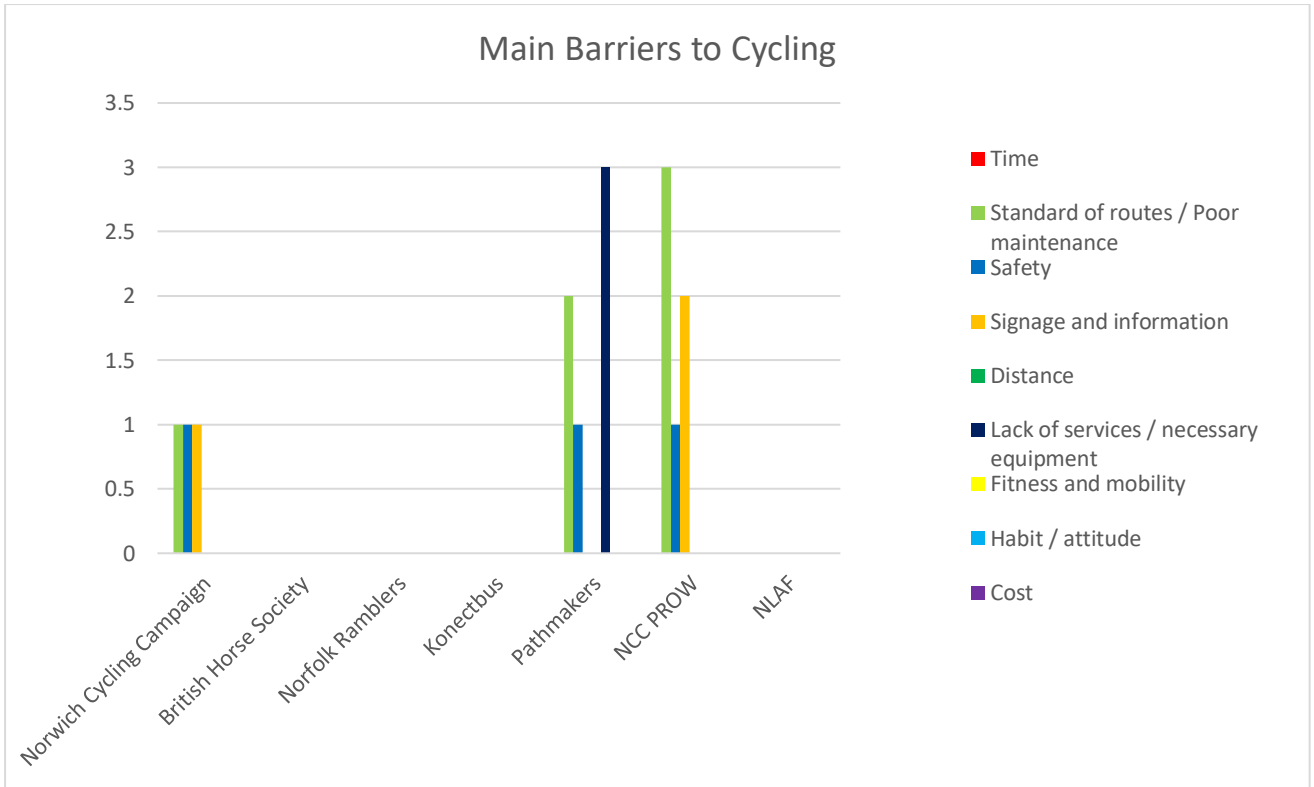


Figure 3-3 - Main barriers to cycling

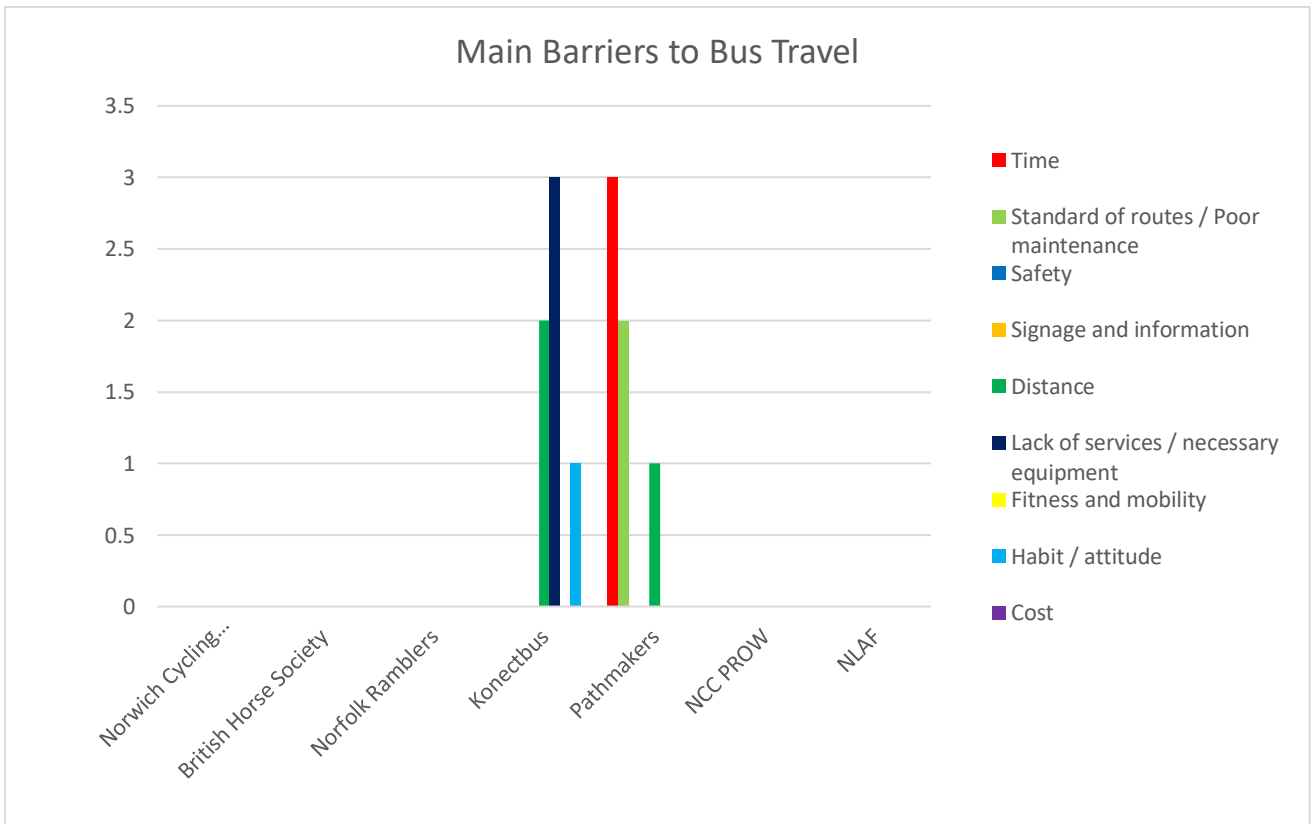


Figure 3-4 - Main barriers to bus travel

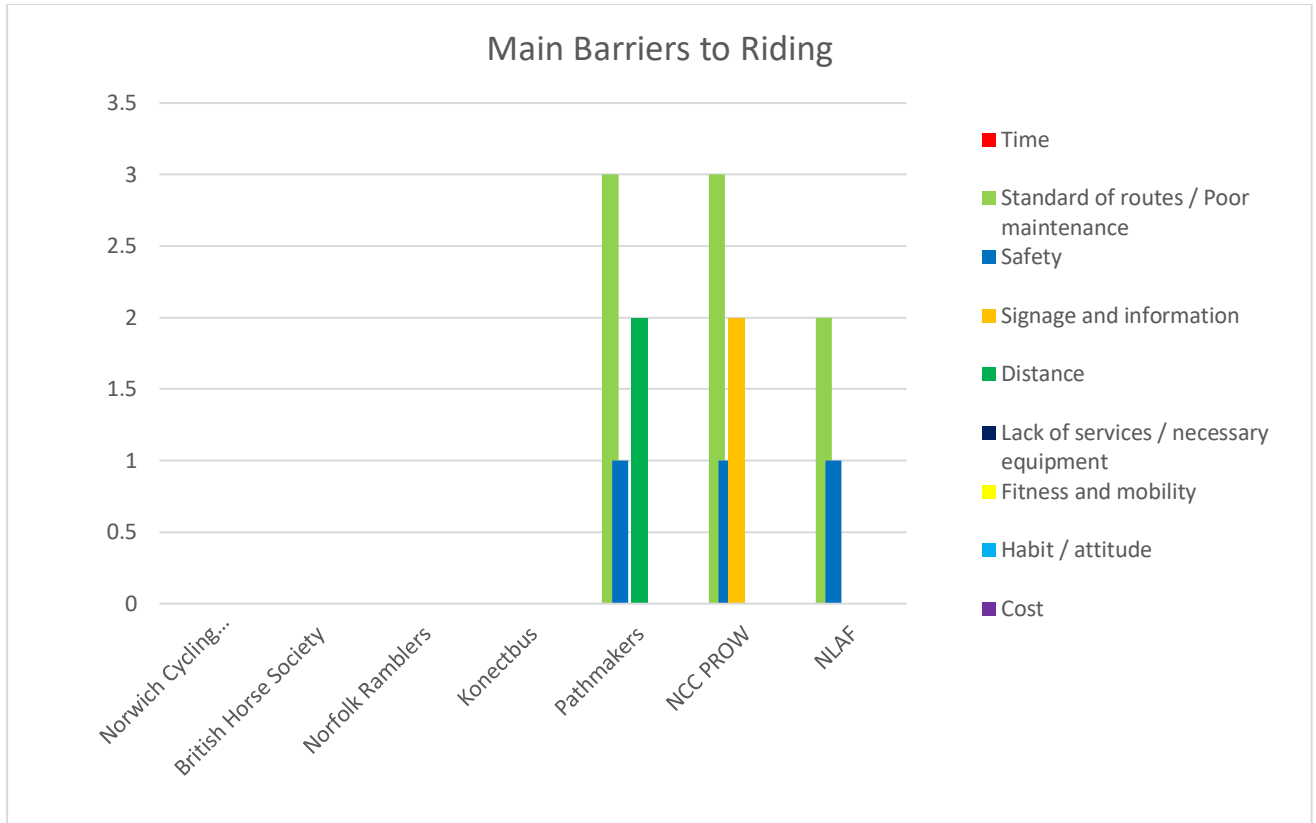


Figure 3-5 - Main barriers to riding

- 3.1.13. From the results gathered, the barriers that are common across all modes is that of standard and safety of the routes available. The main barrier to cycling is that of standard, safety and signage
- 3.1.14. The main barrier to bus travel is the attitude towards travel modes, distance and standard, which could be improved if the NWL could support a new bus route and improved timetable.
- 3.1.15. The main barrier to riding is that of safety, as many users rely on roads to access the Public Rights of Way and key trip attractors.

Question 5

- 3.1.16. The fifth question seeks to understand how the behaviour of user groups will change following the construction of NWL.

Table 3-4 – Perceptions towards the NWL construction

Suggestions	Frequency
Less traffic	3
Greater ease of driving	2
Sustainable travel less attractive	1
No rat running on local roads	1
Easier to travel to key destinations	1
Greater ease of sustainable travel	1
Rat running will still remain an issue	1
NWL will be a barrier to movement	1

3.1.17. The questionnaires have highlighted that the majority of respondents feel that NWL will improve journeys and provide greater opportunities for sustainable travel. However, there are still concerns that the link will not reduce rat running, as current users will continue to travel in the future as they currently do now.

Question 6

3.1.18. When asked what journeys a significant number of users make on foot or by bike, responses note that key routes travelled are:

- Norwich to Ringland;
- Norwich To Lyng
- Queen’s Hills to Norwich;
- Barnham Broom to Norwich, via Ringland; and
- Taverham to Lenwade

3.1.19. To support more journeys to be made on foot or by bike, it is suggested that there should be safe access to the bus routes on the A1067, safe crossings to the Marriott’s Way, better bus stop infrastructure and a route between Ringland Road and / or Queen’s Hills and the Marriott’s Way.

Question 7

3.1.20. Respondents were asked to rank sustainable transport improvements from 1 to 10 (1 being the most important) in terms of priority with the NWL scheme. **Table 3-5** below shows the improvement that was voted the highest by respondents was to improve cycling routes. Further improvements prioritised were to close roads to through traffic and to improve pedestrian routes. The improvements with the lowest frequency are those that should be prioritised first.

Table 3-5 – Sustainable transport improvements to package with the NWL

Sustainable Transport Improvement	Frequency
Improved cycling routes	10
Roads closed to through traffic	12
Improved pedestrian routes	15
Improved crossing facilities	17
Designation of quiet lanes	19
Revised speed limits and speed-reducing infrastructure e.g. chicanes	24
Other	28
Additional cycle parking at key facilities	32
Weight restrictions	34
Improved bus waiting facilities	39

Question 8

The questionnaires were used to establish whether there were any gaps in the walking, cycling and horse riding network that could be improved for connectivity.

Table 3-6 – Suggestions to improve connectivity

Suggestions	Frequency
Safer crossings over the A47	2
Connection to the Marriott's Way	1
Connection to Ringland	1
Routes beside the River Wensum	1
New underpass at Honingham	1
Cycleways linking the NWL and A1067	1
Re-designating Honingham FP5 and Weston Longville FP9 to restricted byways	1
Permissive route from 4 to 6 made a permanent PROW	1
Open up footpaths to cyclists	1

- 3.1.21. The responses obtained show that there is a mix of suggestions, but most suggest better linkage between all routes and making the dual carriageways less of a blockage to movement.

Question 9

- 3.1.22. Four of the routes that will be severed by NWL were put forward to respondents to seek their opinion as to how they should be treated as the project goes forward. The options available to choose from were:

- Maintain existing use;
- Close roads to through traffic, but maintain access for residents;

- Close to all traffic (allow walking, cycling, horse-riding users only); and
- Close to all users

Table 3-7 – Preferences towards treatment of severed routes

All Areas	Preference for treatment of the road			
	Maintain existing use	Close roads to through traffic, maintain access for residents	Close to all traffic (walking, cycling, horse-riding users only)	Close to all users
Ringland Lane	3	2	0	0
Weston Road	1	1	2	0
Breck Road	2	0	2	0
The Broadway	1	0	3	0

3.1.23. The majority of respondents feel that Ringland Lane should remain open following existing use, Weston Road should be closed to all traffic, Breck Road should be either maintained for existing use or closed completely to traffic and The Broadway should be closed to all traffic.

Question 10

3.1.24. Suggestions received as to how public transport services could be improved as part of the NWL project included adding more frequent services, additional bus stops, faster journeys, buses to have facilities to carry bicycles and routes that cross the NWL to provide access to Weston Longville and Ringland.

Question 11

3.1.25. When asked how user groups feel the Public Rights of Way could be enhanced, a myriad of answers were received. Most consisted of introducing more restricted byways for use, so that they can be enjoyed by all user groups.

Table 3-8 – Suggestions to enhance existing Public Rights of Way

Suggestions	Frequency
Extending footpath along the banks of the Wensum on both sides	1
Weston Longville FP9 upgraded to Bridleway or RB	1
Increase public access routes	1
New link for Honingham RB1	1
Re-designating one of the Ringland footpaths to RB to make a link with Attlebridge RBs to the north of A1067	1
Improvements around Route 7 to ensure walkers can use the existing paths south of A1067	1
Upgrade Ringland FP1 and some of FP2-5 to wider use (mainly cycling) giving connectivity to Ringland	1

Question 12

- 3.1.26. If NWL or the A47 dualling led to an increase in traffic on the road network, suggestions were received to combat this; they included closure of roads to through traffic, reduction in speed limits, and the designation of quiet lanes

Norwich Western Link Stakeholder Workshop 2

- 3.1.27. A second stakeholder workshop was held on Friday 24th January 2020 to give an update on the emerging Sustainable Transport Strategy, underpinned by the WCHAR, NMU and Bus Strategy.
- 3.1.28. Representatives from Norfolk County Council, Norwich Cycle Campaign, The Ramblers, First Bus and Konectbus were in attendance so that feedback could be received on the emerging ideas.
- 3.1.29. The Bus Strategy was first presented, and operator feedback from First Bus on the potential loop service suggests that if it is to be subsidised in the early stages of operation, it cannot be seen to compete with existing services. Konectbus have reviewed the loop route, which is longer than an ideal one hour, and so a shorter linear route will be examined to allow the service to operate at a higher frequency.
- 3.1.30. Norwich Cycle Campaign queried why there was no cycle route proposed alongside the viaduct structure – NCC PROW Team highlighted that it has been agreed at the previous workshop that this would not be appropriate through the floodplain. A bridleway designation would require the upgrading of routes within the sensitive landscape and poor ground conditions. The NWL further explained that this would also require a wider structure crossing the Wensum Special Area of Conservation, which would impact on the ecological sensitivity of the SAC and would most likely outweigh the benefits as no overwhelming evidence base shows there is a need for a cycle route crossing the River Wensum.
- 3.1.31. The NCC PROW Team suggested that Weston Longville FP9 should be upgraded to restricted byway to allow carriage drivers to continue north to Breck Road – possibly with

structures such as Kent Carriage gaps to prevent access to motor vehicles, although this will need to be explored with the consent of the landowners.

3.2 LOCAL USER GROUPS AND WIDER PUBLIC

- 3.2.1. A number of key local user groups were contacted to establish the level of support for the proposed route alignment and how that would affect pedestrians, cyclists and horse riders. **Table 3-9** details below the responses received from the stakeholders

Table 3-9 – Local User Groups and Wider Public Engagement Timeline

Date	Stakeholder	Response to Scheme Proposals
May to July 2018	Round 1 Public Consultation	A new road link was deemed necessary due to rat running and levels of traffic on the narrow lanes and junctions. The long list of options was reduced to four, that would be consulted on in more detail later into 2018.
Late November 2018 to January 2019	Round 2 Public Consultation	The four short-listed options were consulted in detail respondents were shown the proposed route layouts and choose their preference of route.
17th September 2019	Norwich Western Link Local Liaison Group (including local Parish Councillors)	Parish representatives were involved in discussion around sustainable travel opportunities within their parishes. A questionnaire was distributed to be filled out at their next parish meeting to gather views on what sustainable transport measures should be packaged with NWL.
23rd September 2019	Local Access Forum, Public Rights of Way sub-group: including attendees from: CPRE Norfolk – Broads Local Access Forum; U3A; Pathmakers; Norfolk Horse Driving Club; The Ramblers; and Open Spaces Society	Attendees were pleased to be able to get involved in informing the Sustainable Transport Strategy. Members wished to know how the current routes could be enhanced and were interested in possibly linking the Broadland Northway cycleway to the new NWL. Representatives would like details, when available, on how the PROWs will be affected on the detailed route alignment and would like to be able to shape the proposals.
19 th November 2019	Norwich Western Link Local Liaison Group (including local Parish Councillors) Attended by Highways England	The members were pleased to see the emerging proposals for the linked NMU strategy and the feedback received from the questionnaires. Members were also pleased to see Highways England in attendance and look forward to taking part in the multi-parish working group in December.

Norwich Western Link Local Liaison Group Responses

3.2.2. On 17th September 2019, a Local Liaison Group meeting was held, with representatives from the local parishes in attendance. Images taken from the meeting are shown in **Figure 3-6** and **Figure 3-7** below. Representatives from the following parishes and groups were present:

- Barnham Broom Parish Council;
- Bawburgh Parish Council;
- Brandon Parva, Coston, Runhall & Welbourne Parish Council;
- Costessey Town Council;
- Drayton Parish Council;
- Elsing Parish Council;
- Felthorpe Parish Council;
- Great Witchingham Parish Council;
- Hockering Parish Council;
- Honingham Parish Council;
- Kimberley & Carleton Forehoe Parish Council;
- Morton on the Hill Parish Council;
- North Tuddenham Parish Council;
- Taverham Parish Council;
- Weston Longville Parish Council;
- Wensum Valley Alliance; and
- Yaxham Parish Council.



Figure 3-6 - Norwich Western Link, Local Liaison Group Meeting, 17th September 2019



Figure 3-7 - Norwich Western Link, Local Liaison Group Meeting, 17th September 2019

3.2.3. The main focus of the meeting was on the ‘packaging’ of complementary transport measures and mitigation to support the NWL scheme, specifically those that support walking, cycling and public transport. During this meeting the WCHAR process was explained and the role of the LLG in informing the future design of the NWL. The groups were then split into four groups, each facilitated by a member of Norfolk County Council or WSP staff.

3.2.4. The following feedback was received from the four groups:

Group 1, facilitated by Paula Cuthbertson, NWL Stakeholder Manager, WSP

- Discussions initially focused on the existing public rights of way and whether they are being used at present; representatives were concerned that opportunities for accessing the countryside may be lost.
- Representatives were concerned that NWL would not make it easier for bus services; new bus routes would be welcomed as there is a lack of services in the study area, such as to the Hospital. Potentially an outer circle orbital bus route is needed to allow for radial routes to connect with each other.

Group 2, facilitated by Zeyna Soboh, NWL Design Coordinator, WSP

- Representatives put forward an idea to create a new footpath from Ringland Road to the A47, and to make sure that the new road is inputted to satellite navigation systems, to avoid any rat-running. The footpath would be needed as there is no bus route to that location in the study area, and so will be used to travel to existing services further afield.
- Representatives agreed that Ringland Lane should remain open to traffic, but HGVs should be deterred, to reduce rat-running.

Group 3, facilitated by Chris Fernandez, NWL Project Manager, NCC

- The group agreed that mitigation is needed to the north of the study area, such as traffic calming and that three of the roads severed by NWL should have continual flow tunnels for all users, except HGVs.
- It was agreed that some areas will see traffic reductions and improved underpasses and so better use can be made of them. It was also understood that more traffic would be directed in the Honingham direction, and so traffic calming would be needed north of Barnham Broom to deter traffic cutting through to Wymondham.

Group 4, facilitated by Philip Clark, Associate, WSP

- It was agreed that NWL would help to relieve traffic in areas such as Great Witchingham, but additional traffic would go through Barnham Broom towards Wymondham. It was suggested that the access to Berry's Lane Honingham is closed, only allowing for local access along the old A47, but blocked to all other traffic.

3.2.5. A questionnaire was distributed during the session to understand existing usage of the walking / cycling / equestrian routes in the study area, thus enabling the design team to have a useful source of background information on any areas of opportunity. A copy of the questionnaire is included in **Appendix I**.

3.2.6. The following questions were included in the questionnaire, split into 'Existing Use', 'Barriers to Use' and 'Future Use and Enhancement' sections;

- Question 2: What are the key destinations that are accessed by your local residents by non-car modes? What routes do people currently take to get there?
- Question 3: Are you aware of any public walking/cycling/equestrian routes that the NWL intersects with, that are well-used or important to your local residents? If so how are these currently used, and by whom.
- Question 4: What do you feel are the main barriers to your parish residents walking/cycling/horse-riding/using public transport more in the area?
- Question 5: How do you think the NWL will affect travel behaviour within your local community?
- Question 6: What journeys would a significant number of your residents want to make on foot or by bike (e.g. to local amenities, bus stops, recreational areas, neighbouring communities, retail and employment sites) and what measures would help support them to do this?
- Question 7: What sustainable transport improvements do you think should be prioritised for being packaged with the NWL scheme to better support people travelling by non-car modes?
- Question 8: Are there any gaps in the walking / cycling / horse-riding network that could be improved for better connectivity?
- Question 9: What improvements to public transport services, routes and infrastructure do you think would help make bus travel more attractive for your local residents?
- Question 10: If future changes to the road network, including the Norwich Western Link and A47 dualling, were to contribute to an increase in traffic on roads in the study area, do you have any suggestions of potential measures that could help to mitigate traffic impacts of the NWL? (E.g. pedestrian crossings, speed restrictions, weight limits etc.)

NWL LLG Questionnaire Responses

3.2.7. Questionnaire responses were received by 18th October from the following 19 parishes:

- Bawburgh Parish Council;
- Felthorpe Parish Council;
- Hellesdon Parish Council;
- Kimberley and Carleton Forehoe Parish Council;
- Barford and Wrampingham Parish Council;
- Easton Parish Council;

- Elsing Parish Council;
- Taverham Parish Council;
- Weston Longville Parish Council;
- Hockering Parish Council;
- Brandon Parva, Coston, Runhall and Welborne Parish Council;
- Drayton Parish Council;
- Ringland Parish Council;
- Barnham Broom Parish Council;
- Honingham Parish Council;
- Mattishall Parish Council;
- North Tuddenham Parish Council;
- Costessey Town Council; and
- Marlingford and Colton.

3.2.8. The map below shows the location of the parishes who returned the questionnaires and their proximity to the proposed route alignment (Figure 3-8).

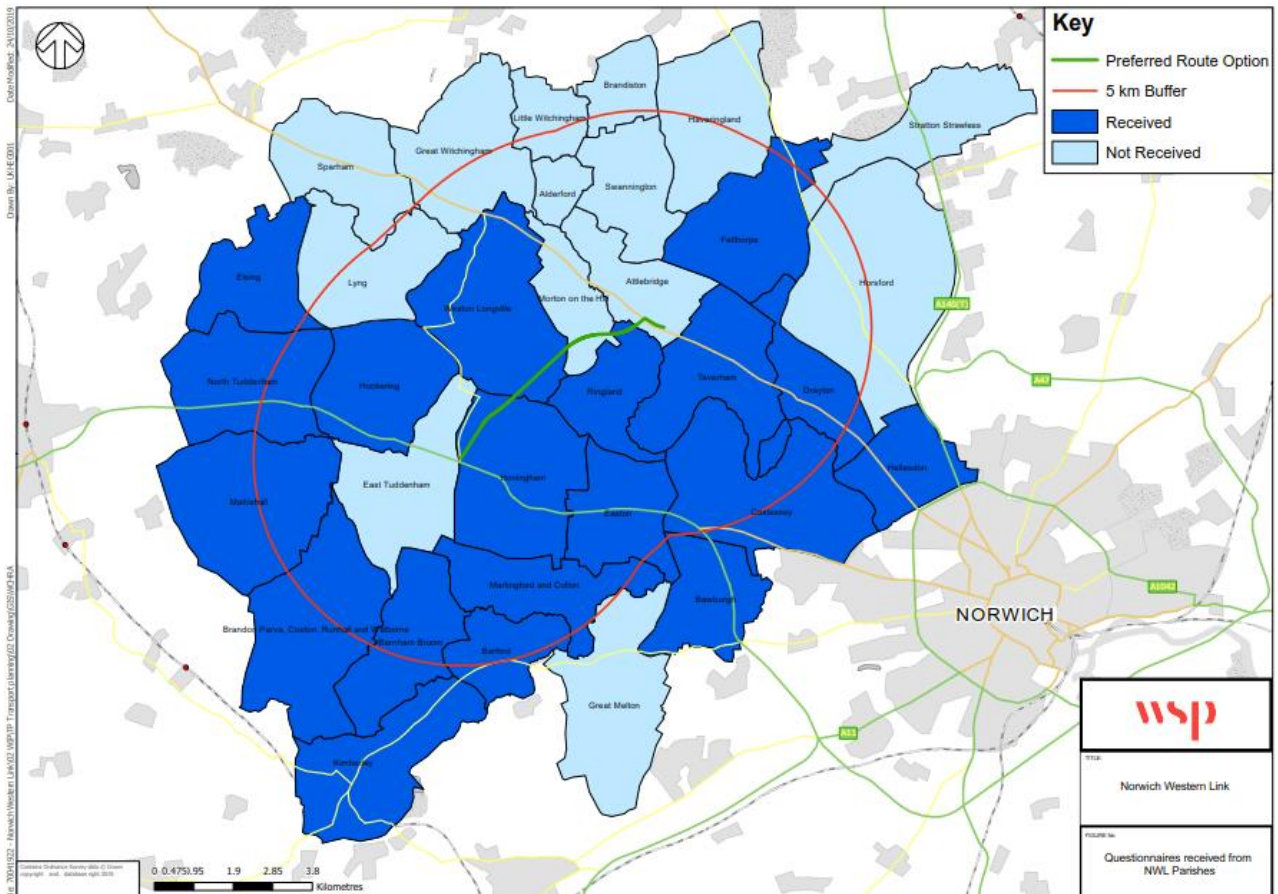


Figure 3-8 - Questionnaires received from local Parishes

Question 2

- 3.2.9. 16 of the parishes answered this question; two opted out due to their locations and so would not wish to comment. Of the responses, seven routes were highlighted as those most used: A140, A1067, A11, B1108, B1149 and rural roads. The NWL will help to improve connectivity to these key routes and allow for faster travel in and around the city. Three bus services were mentioned as key ways to travel the preferred destinations – Konectbus 3, Flexibus and Semmence for the areas of Barford & Wramplingham. A long list of key destinations were noted; these are shown in the table below (**Table 3-10**).

Table 3-10 – Key destinations accessed by local residents

Key Destinations	Origins (Parish)	Frequency
Local services e.g. shops, school etc.	Kimberley and Carleton Forehoe Barford and Wramplingham Easton Taverham Costessey Hockering Brandon Parva, Coston, Runhall and Welbourne Barnham Broom	8
Norwich City Centre	Felthorpe Hellesdon Drayton Honingham Mattishall	5
Longwater	Easton Honingham Costessey	3
Mattishall	Brandon Parva, Coston, Runhall and Welbourne Elsing Honingham	3
Wymondham	Barford and Wramplingham Honingham	2
Dereham	Elsing Honingham	2
Horsford	Felthorpe	1
Hethersett	Barford and Wramplingham	1

Costessey	Elsing	1
Lyng	Elsing	1
Bawdeswell	Weston Longville	1
Taverham	Weston Longville	1
Ringland	Taverham	1
Great Witchingham	Brandon Parva, Coston, Runhall and Welbourne	1
Drayton	Brandon Parva, Coston, Runhall and Welbourne	1
Runhall	Drayton	1
Barnham Broom	Felthorpe	1
Norfolk & Norwich University Hospital	Barford and Wrampingham	1

3.2.10. The above table shows that the destinations most frequently accessed by local residents are those closest to them, such as the schools and the shops within villages, Norwich City Centre is the second most popular destinations for shopping, commuting or leisure purposes, due to the greater choice available in the city. Other key service villages are noted, such as Costessey and Barnham Broom.

Question 3

3.2.11. 9 parishes did not answer the question, again due to their location within the study area not being applicable for the question. Of those who answered, Routes 2-6 were noted as being used for circular walks / rides by both local residents and local cycling groups. Felthorpe responded that all routes should remain open, such that they will always be available for use. Kimberley and Carleton Forehoe parish was sure that the routes important for sustainable travel in their parish would be negatively impacted as a result of increased rat-running when the NWL opens. Other comments noted were that Ringland Lane and the roads from Hockering to Ringland are well used by cyclists; the footpath from Mousewood Farm and Ringland FP1 are all important and should remain open.

Question 4

3.2.12. Parishes were asked to rank the three most significant barriers to sustainable travel within the area for the modes of walking, cycling, bus travel and horse riding, with the following options:

- Time;
- Standard of route / poor maintenance;
- Safety;
- Signage and information;
- Distance;
- Lack of services / necessary equipment;



- Fitness and mobility;
- Habit / attitude; and
- Cost.

3.2.13. The following graphs show the results for each parish, split by mode.

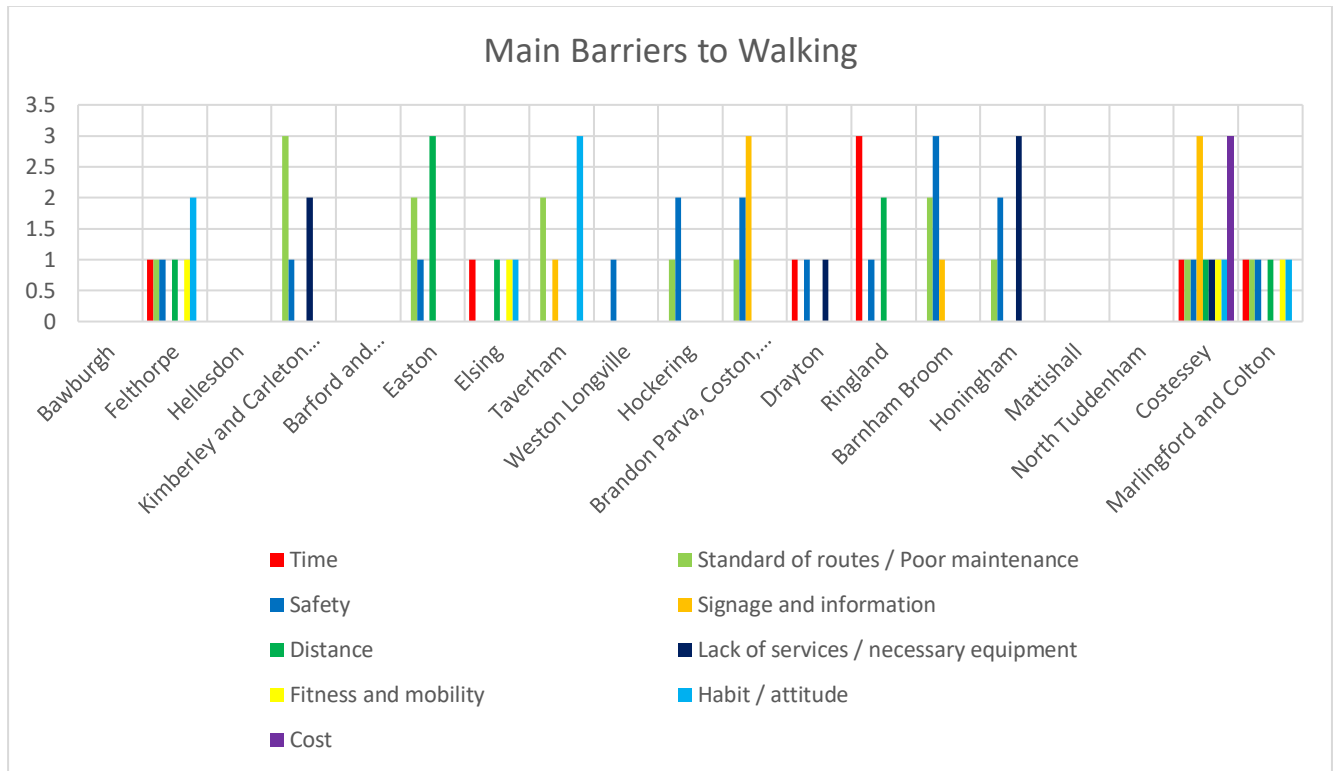


Figure 3-9 - Main barriers to walking

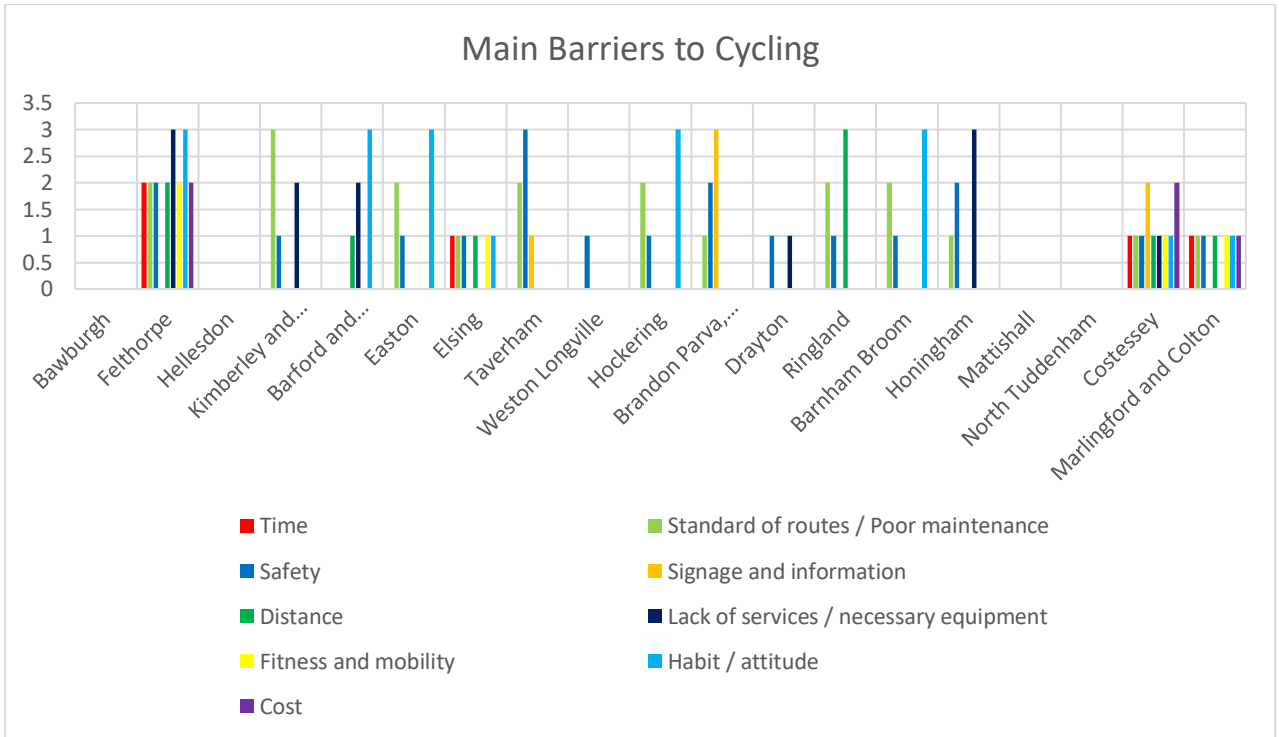


Figure 3-10 - Main barriers to cycling

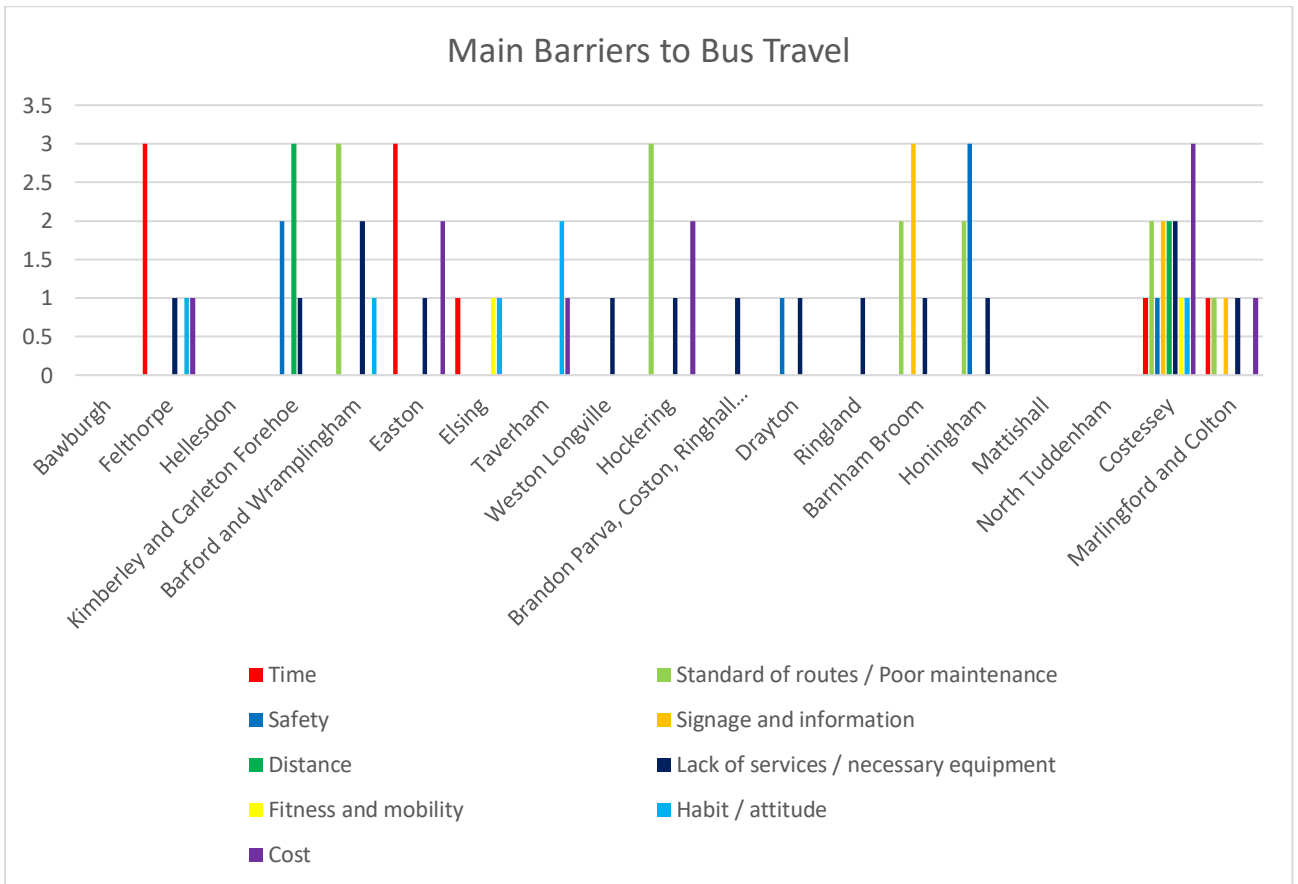


Figure 3-11 - Main barriers to bus travel

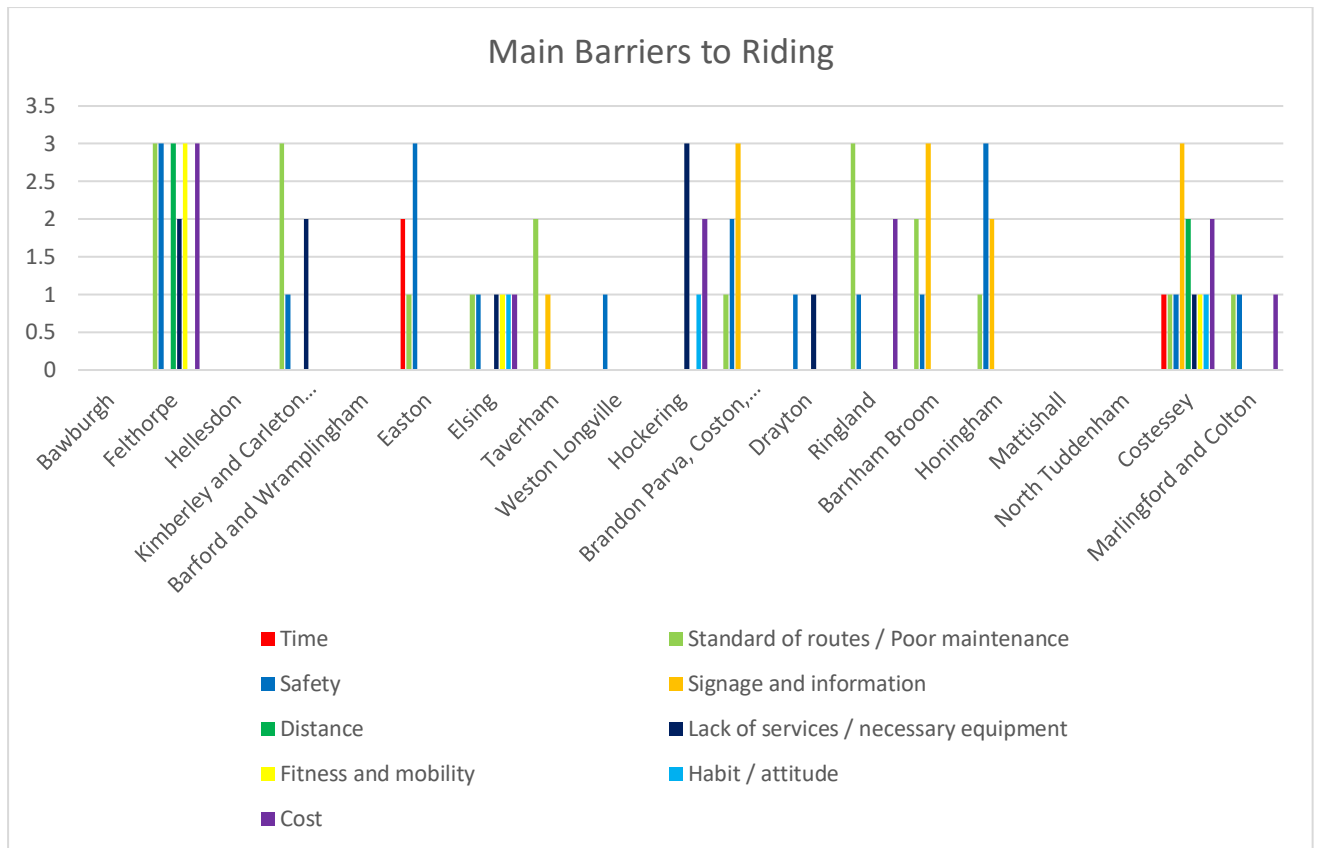


Figure 3-12 - Main barriers to horse riding

- 3.2.14. The main barriers for walking are the standard of routes / poor maintenance and issues of safety. Cycling was considered to have the same barriers as walking, as well as that of lack of services / necessary equipment, which could be due to the low number of cycle routes and infrastructure in place in the most rural zones.
- 3.2.15. The main barriers to bus travel were the lack of services to the rural parishes, habit / attitude and the time taken for bus journeys, especially in relation to the private car. For horse riding, the main barriers are that of the standard of routes / poor maintenance, lack of services / necessary equipment and safety.
- 3.2.16. The results from this question show that a lot more could be done to encourage increased use and enjoyment of sustainable modes within the study area.

Question 5

- 3.2.17. When asked how the NWL will affect their travel behaviour within their parish, the greatest majority said that the route would reduce rat-running, as it will provide a better alternative of travel into Norwich by avoiding the rural routes. However, it was also noted that some areas were concerned that the NWL would increase rat-running, including the parishes of Felthorpe, Kimberley and Carleton Forehoe, Ringland and Honingham. Other comments are those that believe NWL will improve journey times, encourage increased driving, increase traffic, increase HGV use, allow faster access to North Norfolk and that it will provide a new



route to the A47. Some comments suggest that there will be increased use of local roads, despite the new link and that it will allow for rat running to the A11.

Question 6

- 3.2.18. When asked what journeys would be made on foot or by bicycle, the main responses were for: recreation, school, shops, golf course, GP surgery or to bus stops. The measures suggested to improve access to these were to provide better links to Wymondham, Longwater Lane, Ringland or Costessey, such as to remove rat-running and make the routes more suitable to the current levels of traffic experiences.
- 3.2.19. Improved bus stop infrastructure was also a frequent comment, which could include the provision of real-time information and bus shelters, which would make bus travel more attractive. Better footpaths and cycle paths were mentioned, as well as to reduce traffic on minor roads, which would create a much safer environment for sustainable modes. Other comments included adding secure / covered bike storage, a footpath to Lenwade, improved foot and cycle access from Weston Park to A1067, improved signage, a new footpath on Honingham Road and keeping verges cut.

Question 7

- 3.2.20. This question considers what sustainable transport improvements should be prioritised for packaging with NWL, and the most popular answer was to increase bus frequency and route options. This would enable greater flexibility of travel options and could reduce the reliance on private car travel. Another common request was to introduce and enforce speed and weight restriction on the local roads, such to discourage use by HGVs and through traffic. This could then in turn make the rural roads much quieter and support the use of sustainable transport.
- 3.2.21. Improved road maintenance and footpath maintenance is important to the parishes to make the areas safer. Prevention of rat-running by the closure of Berry's Lane was mentioned by two parishes, as it currently allows for rat-running from Wymondham, which shouldn't be an issue with the construction of the NWL.
- 3.2.22. Additional comments include: a bus transfer hub at the airport, cheaper bus services, more bridleway designations, improved signage, tunnels under NWL that limit traffic size, and additional pavements.

Question 8

- 3.2.23. This question seeks to find out if there are any gaps in the walking / cycling / horse riding network that could be improved. With this in mind, the most popular answer was that there were no gaps, but the existing routes could be further improved. On the other hand, it was noted twice that parishes though there was a non-existent network, which further discouraged use of sustainable modes.

- 3.2.24. Other comments included: a reconnection of Easton to Lower Easton, better connectivity, lack of safe crossings, ensure all public rights of way are open for use at all times and the lack of off-road footpaths and safer cycling routes.
- 3.2.25. A suggestion was put forward to extend the footpaths to Barnham Broom Hotel and Mount Pleasant to improve connectivity.

Question 9

- 3.2.26. Public transport is also considered in the questionnaire, with suggestions sought as to how the services, routes and infrastructure should be improved to make bus travel more attractive.
- 3.2.27. Similar to that of Question 6, increased frequency and reliability was by far the most important factor for parishes in order to improve uptake of bus travel. This could also be supplemented by evening services, creating greater flexibility for users.
- 3.2.28. A circular route on the Broadland Northway / A47 / NWL was put forward, as well as a service through Horsford, Mattishall and Lenwade, which would give greater access to areas for those in the most rural zones.
- 3.2.29. Other comments included: bus lanes, a direct link to the airport or railway, services along the old A547 once the dualled section is opened, a Park & Ride facility at Easton, a bus transfer hub, lower fares, safer crossings near bus stops and hybrid buses.

Question 10

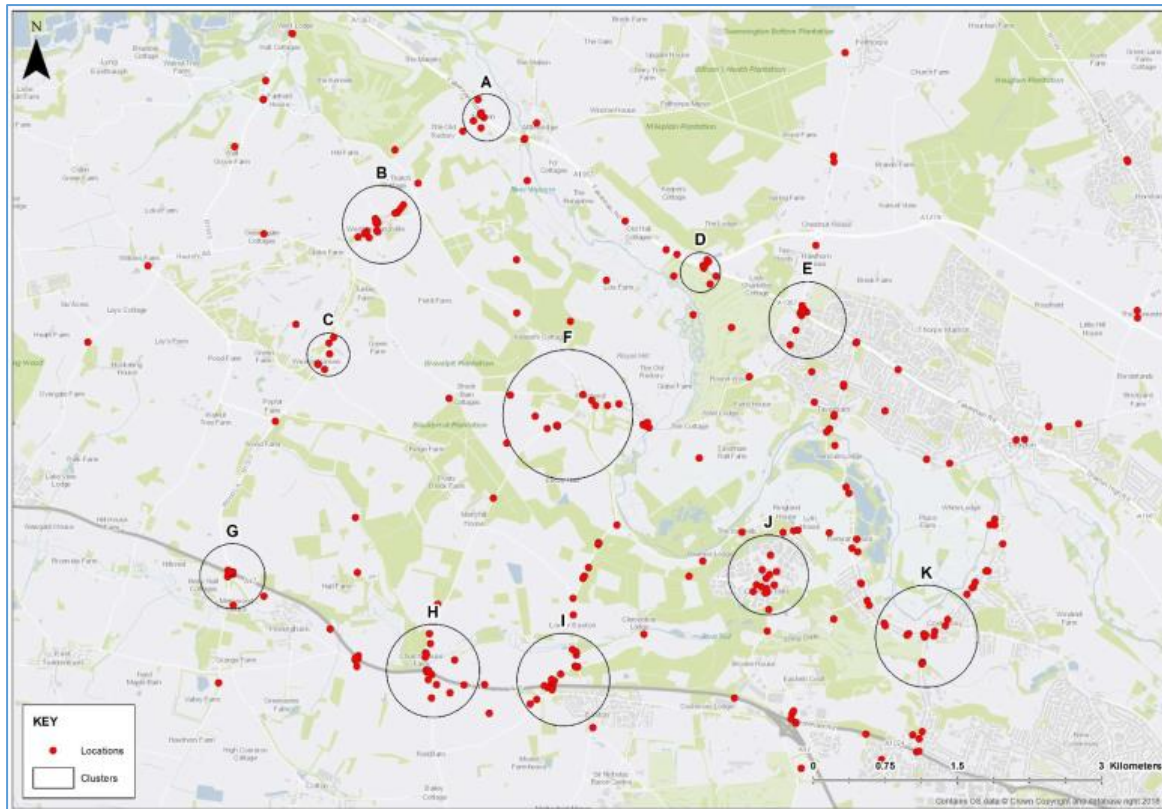
- 3.2.30. The final question considers if future changes to the network were to contribute to increased traffic on the road, what measures should be in place to mitigate this.
- 3.2.31. The most common answer was to lower the speed limit or add speed restrictions to the rural roads, as a measure to combat high levels of traffic. Other frequently mentioned measures were to add weight limits to deter HGVs, chicanes or road narrowing, such as that in Weston Longville to reduce speeds and lengthened journey time, so that other more arterial routes become more attractive.
- 3.2.32. Pedestrian crossings, closure of Berry's Lane, and weight restrictions on weak bridges were also put forward.
- 3.2.33. It was also suggested that satellite navigation systems should be updated as soon as possible to reflect the new road network to begin removing traffic through the rural areas. Other comments included: average speed cameras, closure of Low Road East and better signage.
- 3.2.34. In summary, the questionnaires showed that there is a division in opinion as to whether the NWL will improve travel or worsen it due to the location of the parishes. However, the complementary measures proposed will enable the NWL to be of benefit to all modes and users.

NORFOLK LOCAL ACCESS FORUM – Public Rights of Way Subgroup

3.2.35. On Monday 23rd September 2019, WSP attended the sub-group meeting for the Norfolk Local Access Forum, where the NWL project progress was explained and attendees were invited to attend the Stakeholder Workshop in October. Attendees noted during the meeting showed that they would like to have the opportunity to provide more access for non-car modes, not just to preserve those existing. Representatives were keen to provide an input to the shape the design process.

NWL Public Consultation Round 1

- 3.2.36. A round 1 public consultation ran from May 2018 to July 2018, initiated by NCC as part of their non-statutory early engagement. The purpose of the consultation was to understand people's experience of living in and travelling through the area to the west of Norwich. Further data was collected, and a report was produced for NCC by Commonplace which provided a summary of the data gathered through their platform on the multiple choice and geographic elements of the consultation.
- 3.2.37. Letters were posted and emails sent to key stakeholders before the launch of the consultation and advertisement was carried out through press releases, magazine, newsletters, posters, social media, leaflets and the NCC website. 11 public engagement events were held at various locations within the study area at village halls, the Norfolk and Norwich University Hospital and Norwich Research Park.
- 3.2.38. There were 4,426 unique visitors to the consultation website; 1,732 responses to the main consultation survey, 773 comments pinned to the consultation map that highlighted problems in a specific location and 42 letters or emails.
- 3.2.39. When asked about transport issues in question 1, 25% of respondents indicated that the major issues were traffic congestion (14%) and rat running (11%); a further 115 indicated that dangerous roads were and issue.
- 3.2.40. The section part of the questionnaire included a map, which allowed respondents to geotag a pin in a location on the map. The first question in this section was 'What transport issues, if any, do you feel currently affect this location?' the location of the points is shown below (**Figure 3-13**). The results spread out across the study area, but are clustered in areas such as Ringland, Weston Green, Weston Longville, Morton, Queens Hills, Costessey and at the western end of the Broadland Northway. The clustered tags mentioned that narrow roads and rat running was an issue, as well as concerns regarding safety as to where the new link would join the A1067. Other comments mention HGC and tractor congestion where the Broadland Northway ends and highlighted several junctions that are not suitable for current traffic.
- 3.2.41. The results from this consultation shortlisted the original long list of 82 options, down to four that would be consulted on in the second round of consultation.



**Figure 3-13 - Locations of comments left in section 2 of the R1 Consultation
NWL PUBLIC CONSULTATION ROUND 2 & NWL Option Selection Report (OSR) Responses**

- 3.2.42. In consultation summer 2018, an initial consultation for Norwich Western Link proposals took place to seek feedback on the creation of a new link to the west of Norwich. More than 1,700 responses were received, demonstrating the very strong support for a link from the A1270 Broadland Northway and the A47.
- 3.2.43. Between 26th November 2018 to 18th January 2019 a second non-statutory public consultation was held to inform the selection of a preferred option of the shortlisted four road options. **Figure 3-14** below shows the options presented for public consultation in 2018. A total of 1,931 responses were received for the second public consultation, which included over 12,000 comments regarding the proposed route options.
- 3.2.44. Respondents were asked to provide feedback on each of the four presented options and asked to consider the following issues;
- Boosting the economy;
 - Improving emergency response times;
 - Better access to Norfolk and Norwich Hospital;
 - Better journey reliability;
 - Shortening journey times;
 - Road safety;
 - Reducing emissions from queuing vehicles;
 - Reducing congestion;
 - Reducing rat-running; and
 - Protecting the environment.

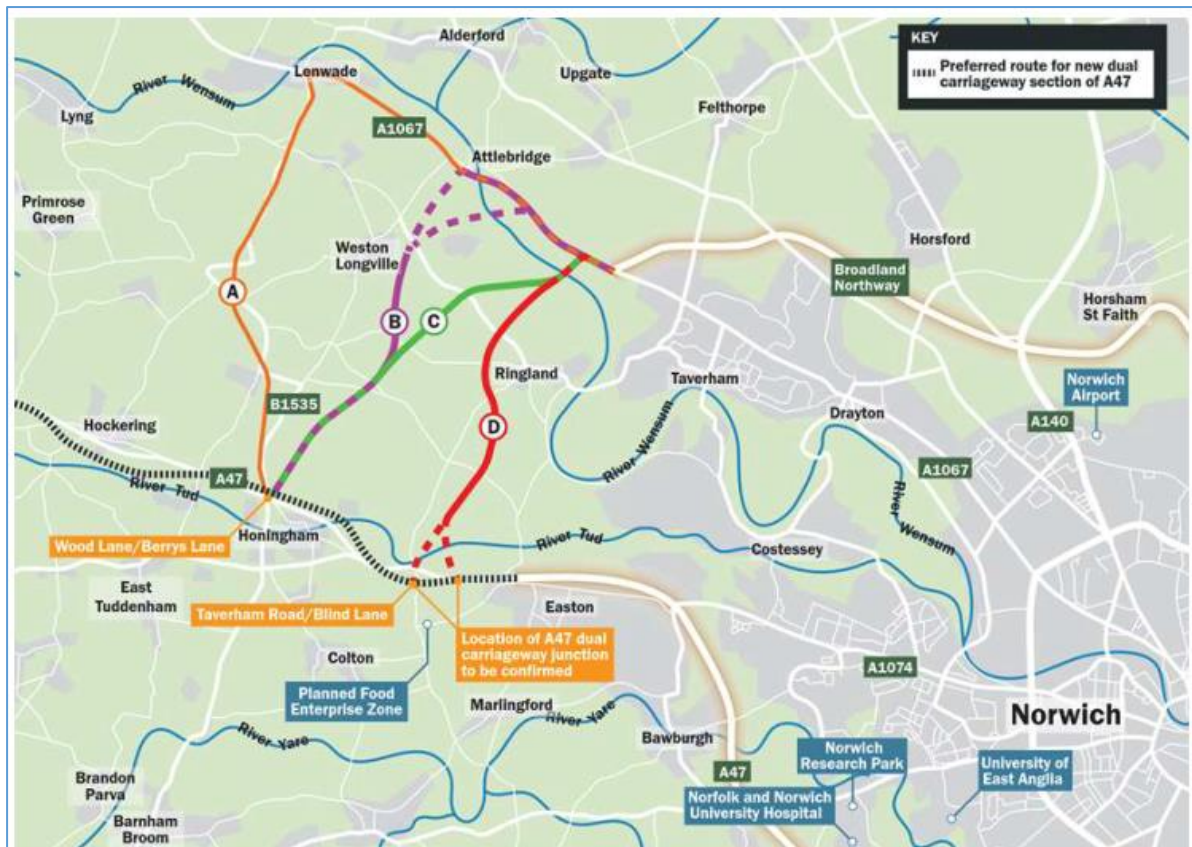


Figure 3-14 - Options Presented for Public Consultation (November 2018)

- 3.2.45. Regarding Option C, the preferred route option, 62.2% of respondents thought that it would provide a very effective or fairly effective Western Link, however, 29.7% thought that it would either be fairly ineffective or not very effective. The remaining proportion of respondents were neutral about Option C.
- 3.2.46. It was deemed that Option C would tackle rat-running the most effectively, as well as ask to reduce congestion and shorter journey times. However, responses indicate that people thought Option C would be less effective at boosting the local economy, protecting the environment and improving access to the NNUH.
- 3.2.47. Comments were also received on the other transport improvements which would be packaged to complement the overall NWL scheme. Question 5 of the consultation questionnaire asked respondents whether there were any other transport improvements they felt would complement NWL. 84% of respondents answered this question – improving bus services and cycling routes were in the top three responses to this question. Over 100 comments refer to the need for improved bus services.
- 3.2.48. The OSR builds on the findings generated through the public consultation to assess:
- The existing conditions of the road network and surrounding land;
 - Produce the layouts for the route options;
 - The impacts of each route on different environmental aspects;
 - The traffic implications; and
 - The results of the 2018/19 public consultation.

Other Feedback



- 3.2.49. Further feedback was received by the Parish of Weston Longville on 18th October, following agreement by the Parish Council on 7th October. The document sets out mitigation measures for the NWL preferred route, based on meetings held by the Parish with local residents, NCC and WSP.
- 3.2.50. The measures are intended to mitigate the impact of noise, air and visual pollution caused by NWL, which are included in **Appendix J**.
- 3.2.51. In summary, the document seeks clarification on:
- the final route alignment and how the new alignment may impact wildlife sites;
 - the extent of land take; access to existing footpaths and bridleways should be maintained at all times during construction;
 - access to bus services on the A47 through creation of a circular route from Ringland Lane;
 - Footpath and cycleway Improvement;
 - Road status changes to change permitted access for HGVs;
 - Update of satellite navigation technology to reflect the new road layout;
 - Upgrade of permissive path from A1067 to Church Street alongside Marl Hill to be upgraded to provide access to Morton and Attlebridge; and
 - A footbridge or light traffic crossing across A1067.

4 USER OPPORTUNITIES

4.1.1. The opportunities highlighted below are considered to be relevant to the study and should be considered further during preliminary / detailed design in addition to any further opportunities that may arise through ongoing development and stakeholder engagement.

4.2 General Opportunities

General Opportunities
<p>Opportunity 1: Incorporate multi-user routes that are inclusive and accessible for all non-motorised users within the NWL scheme</p> <p>Address the needs and access requirements of all users, to ensure that all pedestrians, cyclists and equestrians can access existing and new routes.</p>
<p>Opportunity 2: Avoid severance of existing walking, cycling and equestrian routes or minimise diversion length where severance cannot be avoided</p> <p>Where viable severance of existing routes should be avoided. Where severance is unavoidable, mitigation measures should be added to reduce the impact caused by the project.</p>
<p>Opportunity 3: Creation of a more connected and navigable Public Rights of Way (PROW) network</p> <p>Connectivity of PROW should be addressed within by the scheme, linking key desire lines to encourage the greatest level of use.</p>
<p>Opportunity 4: Introduction of safer crossing points for pedestrians, cyclists and equestrians on A1067 and close to key facilities in the west of Norwich</p> <p>Where pedestrians, cyclist and equestrian routes cross highways, facilities should be safe for all users, thereby improving connectivity between PROW encouraging their use.</p>
<p>Opportunity 5: Improved wayfinding signage</p> <p>Provide signage on key routes and junctions to ensure users can find their way. This should include village destinations, Norwich City Centre, leisure routes, etc.</p>
<p>Opportunity 6: Provision of lighting, where appropriate, on walking, cycling or equestrian routes</p> <p>Where proportionate and viable on pedestrian, cyclist and equestrian routes, the lighting should be provided to improve safety and make the routes more attractive to users.</p>
<p>Opportunity 7: Creation of circular routes for recreational journeys</p> <p>Where practicable, circular routes should be created for all users in addition to more linear 'commuter routes', thus establishing attractive leisure routes.</p>
<p>Opportunity 8: Road surfacing to minimise road noise</p> <p>Where practicable, the NWL should use noise-minimising road surfacing to reduce noise pollution from the route on local users, making sustainable travel for commuting and leisure purposes more attractive.</p>
<p>Opportunity 9: Improve connectivity to Marriott's Way and Pedalway network</p> <p>Provide improved or new routes connectivity to Marriott's Way for all users. Connections should be clearly sign posted and of an adequate standard to support safe travel. This could encourage greater levels of sustainable travel in Norwich and the wider area.</p>

Opportunity 10: Continue discussions with Highways England, seeking to join up the NMU network where PROW routes intersect with A47 and NWL

Continue to hold regular meetings with Highways England to understand the impact of the A47 dualling scheme on the NWL, and how the two can complement each other.

Opportunity 11: Ensure NMU route proposals have a maintenance plan in place

Ensure that existing routes are well maintained and that there is a clear budget in place to support new PROWs proposed.

Opportunity 12: Improved access to bus stop facilities in the west of Norwich

Provide improved access to frequently used bus stops within the study area and ensure that the infrastructure is of a high standard, with adequate crossing provision and shelter.

4.3 Pedestrian Opportunities

Pedestrian Opportunities

Opportunity 17: Improved footbridges on Ringland Footpath 1

The existing footbridges are very narrow and not fit for use by elderly or disabled users, who would benefit from improved facilities.

Opportunity 18 Walking connection from Ringland to Queens Hills

Create a link for pedestrians to access Ringland footpaths from Queens Hills.

Opportunity 19: Dedicate PROW over Marl Hill permissive path

An existing permissive path along Marl Hill from A1067 to Church Street should be upgraded to provide improved pedestrian access from Morton and Attlebridge to key services and the bus stops on A1067.

4.4 Strategic Opportunities

Strategic Opportunities
<p>Opportunity 20: Determine status of Honingham RB1</p> <p>Through the two site visits it appears that the restricted byway is no longer in use, despite user groups advocating to allow for continued access. Determine whether RB1 is still open to the public and whether improved signage and access could be included alongside NWL.</p>
<p>Opportunity 21: Work with Highways England to create a safe Crossing of the A47, at or close to the Wood Lane junction</p> <p>Incorporate safe crossing provision, open to all users, as part of the NWL and A47 dualling projects, that creates improved connectivity north and south of the A47.</p>
<p>Opportunity 22: Safe crossing of the A47, at or close to Dog Lane</p> <p>Develop in conjunction with Highways England. Safe crossing facilities of the A47 at Dog Lane for all users. Such facility may be grade-separated rather than crossing at-grade.</p>
<p>Opportunity 23: Diversion of Honingham RB1</p> <p>Diversion of users to The Broadway underpass to the north, to bring RB1 alongside the east of the scheme. Re-route RB1 to the west of NWL to reduce impacts on Easton Estates and tie-in with maintenance tracks that are provided for the drainage basins on the east side of the route.</p>
<p>Opportunity 24: Creation of Public Right of Way over existing permissive route from Ringland Lane to Weston Lane</p> <p>Alongside Blackbreck Lane and Ringland Lane there is a permissive route along the field boundary that leads back to Weston Road. There was evidence of use by pedestrians, cyclists and equestrians during the site visit and further comments made through stakeholder and resident engagement. Creation of Public Right of Way over existing permissive routes would create a circular route for use by the public.</p>
<p>Opportunity 25: Crossing provision over A1067 for access to Morton-on-the-Hill RB1 and bus stops</p> <p>There is no safe crossing provision to allow users to access the bus stops on the A1067. A crossing may improve bus patronage and make the existing RB1 more attractive to use. This should also include shared-use paths to connect RB1 and the bus stops.</p>
<p>Opportunity 26: Determine status of Attlebridge RB3</p> <p>The site visit has shown that the access from Taverham Road is no longer a PROW, contradicting the Definitive Map. It should be investigated if the PROW has been stopped up and identify whether there is the potential to open it up to allow for travel over/under the Broadland Northway.</p>
<p>Opportunity 27: Determine status of NCC Maintained Unsurfaced Track, south of A47</p> <p>There may be possibility to re-designate the track as a Public Right of Way, e.g. bridleway to make the public aware of the track and increase usage. The track provides a good route south of the A47 and into Easton.</p>
<p>Opportunity 28: Use old A47 as a new restricted byway or bridleway</p> <p>Re-designate the old A47 when the dualling scheme is complete for use as a restricted byway or bridleway.</p>
<p>Opportunity 29: Blackbreck Lane to designated as a bridleway or restricted byway</p>

Implement a formal change from an NCC Maintained Unsurfaced Track to a bridleway or restricted byway.

Opportunity 30: Circular route from Hockering Heath to Easton

The circular route will connect existing routes, such as The Broadway and provide an east-west route across the study area.

4.5 Cyclist Opportunities

Cyclist Opportunities

Opportunity 13: Creation of appropriate cycle infrastructure

Develop opportunities to continue the infrastructure for active travel with tarmac surface paths separated from traffic with wide verges / landscaping where feasible.

Opportunity 14: Creation of new cycle routes on east-west routes towards Norwich City Centre

The possibility of a segregated cycle track, remote from the NWL or A47 dualling, would be more attractive to users, and so opportunities to explore relocation of cycle routes should be implemented.

Opportunity 31: Connection of Broadland Northway cycle path to NWL

Continue the cycleway from the Broadland Northway to NWL to improve connectivity and create a sustainable link in and around the city.

Opportunity 32: East-west cycle route from Mattishall to NNUH/UEA

Create an east-west cycle route to the south of the A47 from Mattishall to NNUH / UEA to follow a key desire line.

Opportunity 33: Widened entrance from Station Road onto Morton-on-the-Hill BR1 for cyclists

The existing entrance is very narrow and forces cyclists to dismount; provide a wider entrance to make enable cyclists to continue without dismounting.

4.6 Equestrian Opportunities

Equestrian Opportunities

Opportunity 15: Creation of bridleways or restricted byways

Where viable introduce or re-designate PROWs to bridleways or restricted byways to open up more route to equestrians and carriage drivers, which will improve safety and provide greater off-road route choices.

Opportunity 16: New PROWs to be suitable for carriage drivers

Where viable, new PROWs should be accessible to carriage drivers. Access will require careful design development to enable carriage access but prevent abuse of routes by motorised users.

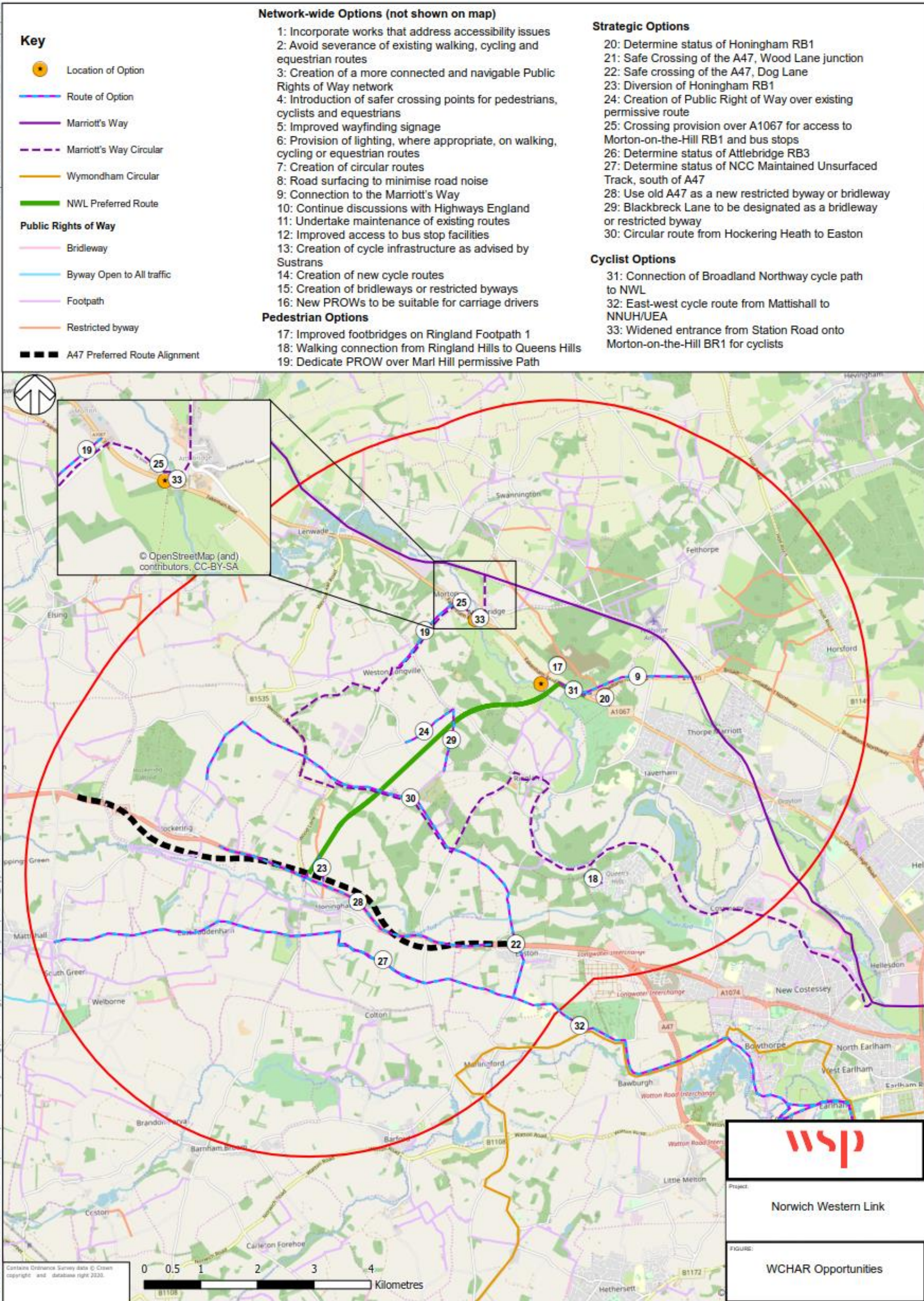


Figure 4-1 – WCHAR Opportunities

4.7 NEXT STEPS

- 4.7.1. The WCHAR Assessment report provides the design team with relevant background information and identifies opportunities to facilitate the inclusion of all walking, cycling & horse-riding modes in the highway scheme design process. The output may also be used to inform Sustainable Transport Strategy, NMU Strategy and influence the design of the proposed route alignment.
- 4.7.2. Once the design team has had opportunity to consider and incorporate the findings from the Assessment Report into the highway scheme design, the Review phase can commence. This phase ensures that previously identified opportunities at the Assessment phase have been considered and implemented where achievable. It also identifies opportunities for improvement for pedestrians, cyclists and equestrians as a result of the developing highway scheme design. The review records action taken / outcomes alongside the identified opportunities.
- 4.7.3. In November 2019, GG 142 replaced HD 42/17, the full document being re-written to make it compliant with the new Highways England drafting rules.

Appendix D

LOCAL LIAISON GROUP TERMS OF REFERENCE



Norwich Western Link and A47 North Tuddenham to Easton dualling scheme

Local Liaison Group – Terms of Reference:

1. Introduction

- 1.1 The Norwich Western Link (NWL) Local Liaison Group was formed in February 2017 to support the development of the Norfolk County Council (NCC) project, which is one of its key infrastructure priorities.
- 1.2 It was agreed in August 2020 that the group's remit would be expanded to include Highways England's (HE) A47 dualling scheme between North Tuddenham and Easton, given the need for a joined-up approach across the two projects and the overlap in many of the issues.
- 1.3 This note updates the previous Terms of Reference for the Local Liaison Group in light of these changes.

2. Governance

- 2.1 Meetings of the Local Liaison Group will be held approximately every two months and will be aligned with the overall delivery programmes and key milestones of the two projects.
- 2.2 The LLG will, based on their feedback to the project as it moves through its delivery processes, help to advise and inform the NWL NCC Project Team, who will advise and update the NCC Member Working Group. The role of the Member Working Group is to advise NCC's Cabinet on decisions related to the NWL project. The Cabinet Member for Highways and Infrastructure is the chair of the LLG, and therefore also receives direct feedback from the LLG.
- 2.3 The LLG will also provide feedback to HE on the A47 North Tuddenham to Easton project and will help advise and inform the HR project team who will have suitable representation at meetings.

3. Working Group Purpose and Structure

- 3.1 The role of the Group is to support the development of the Norwich Western Link project and A47 North Tuddenham to Easton dualling scheme, providing in-depth local knowledge of the challenges and opportunities.
- 3.2 The purpose of the Local Liaison Group is to:
 - Provide local insight to the concerns, problems and challenges faced;
 - Provide a channel for information to be shared by and with local councils and their communities;
 - Review and comment on the aims and objectives for the projects;
 - Identify aspirations, priorities, potential interventions and opportunities;
 - Raise and discuss issues which require consideration by both Norfolk

County Council and Highways England, including those related to the construction periods for both projects;

- Review and consider the projects in relation to other schemes and developments including other transport improvements and the Food Enterprise Park at Easton.

3.3 Group Membership and Chairperson:

3.3.1 The group is made up of one representative from each Parish / Town / Ward Council across an area to the west of Norwich extending from north of the A1067 Fakenham Road to south of the A47. More than one councillor from a single parish council may attend, however additional representatives are expected to attend as observers only. Substitutes may be sent if the usual representative is unable to attend. Requests for changes or additions to the membership will be considered by the group at meetings.

3.3.2 The membership has been expanded since the group was originally set up to take account of its increased remit and requests from parish councils to be invited. The current membership of the group is included at Appendix A. Cllr Martin Wilby, Norfolk County Council's Cabinet Member for Highways and Infrastructure, will continue as the chairperson. Officer representatives from Norfolk County Council and Highways England will also be part of the Group and consultants and contractors on each project will attend as necessary.

3.4 Meetings and papers

It is proposed that group meetings will be held approximately every two months. An agenda and relevant papers will be distributed in advance of each meeting, usually no later than one week beforehand, with details developed by the Chairperson and representatives from Norfolk County Council and Highways England. Agenda items for future meetings will be agreed by the Group at the previous meeting where possible. Minutes of each meeting will be circulated by email and agreed by the group at the following meeting.

3.5 Resources and meeting formats

Norfolk County Council will be responsible for arranging meetings and issuing meeting agendas and minutes. Both NCC and HE will provide reports and presentations at meetings as appropriate. Meetings will either be held in person at a local venue or virtually via Microsoft Teams, this will be agreed at the previous meeting. Meetings will be arranged to start in the early evening and be held for 90 minutes as standard.

3.6 Period of existence and updates to the Terms of Reference

It is envisaged that the Local Liaison Group will continue to meet throughout the planning and delivery phases of both projects. The Terms of Reference will be reviewed every 12 months and proposed updates to reflect new information or ways of working will be shared and agreed with the group.

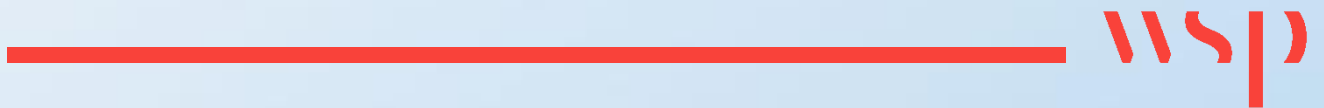
Appendix A

Local Liaison Group Membership

- Barford
- Barnham Broom
- Bawburgh
- Bowthorpe Ward
- Brandon Parva, Coston, Runhall & Welbourne
- Carleton Forehoe
- Colney
- Costessey
- Drayton
- East Tuddenham
- Easton
- Elsing
- Felthorpe
- Great Melton
- Great Witchingham
- Hellesdon
- Hockering
- Honingham
- Horsford
- Horsham St Faith
- Lyng and Sparham
- Marlingford and Colton
- Mattishall
- Morton-on-the-Hill
- North Tuddenham
- Reepham
- Ringland
- Taverham
- University Ward
- Weston Longville
- Wensum Ward
- Wymondham
- Yaxham

Appendix E

NON-MOTORISED USER STRATEGY PLAN



Route Descriptions

Route 1a (A-B)
Dedication of new shared pedestrian-cycleway linking Honingham village centre and Village Hall to A47 NMU route and Honingham Restricted Byway.

Route 1b (B-C)
Diversion of Honingham Restricted Byway 1 to east side of NWL.

Route 2 (D-G)
The Broadway is to be closed to all traffic except for private access.
Creation of a traffic-free route for NMUs with the introduction of Traffic Regulation Orders to restrict access by motor vehicles except for private access.
D-E - Introduce a Traffic Regulation Order prohibiting motor vehicles and horse drawn carriages. Access equivalent to Bridleway status.
E-G - Introduce a Traffic Regulation Order prohibiting motor vehicles only. Access equivalent to a Restricted Byway.

Route 3 (E-F)
Breck Road is to be closed to all traffic except for access.
F1-F2 - Introduce a Traffic Regulation Order prohibiting motor vehicles. Access equivalent to a Restricted Byway.
F2-E - Dedication of a new Restricted Byway linking Breck Road and The Broadway to maintain NMU access over the NWL.
The east side of Breck Road is to be stopped-up and removed.

Route 4 (H-I)
Churchill Lane is to be closed to all traffic.
J-I - West side, introduce a Traffic Regulation Order prohibiting motor vehicles except for private access from point F. Access equivalent to a Bridleway.
H-I - East side, to be stopped-up and removed.

Route 5 (H-M)
Blackbreck Lane - the existing unsurfaced Highway to the east of the NWL is to be retained, with a localised diversion to Ringland Lane. The remainder of Blackbreck Lane, west of the NWL (from N1 to N2) will be stopped up.

Route 6 (M-L)
Ringland Lane retained open to all traffic.
NWL bridge passing over. Provision of footway alongside Ringland Lane.
Predominately unbound surface (Trodd to NCC specification).

Route 7 (P-R)
Existing Ringland Footpath 1 (FP1) to remain and pass under Viaduct.

Route 8 (G-H)
Existing Weston Longville Footpath 9 (FP9) upgraded to Restricted Byway.

Route 9 (I-K)
Dedicated new Bridleway from Church Hill Lane to Blackbreck Lane.

Route 10 (L-O)
Dedicated new public footpath over NWL maintenance access track.

Route 10a (O-Q)
Dedicated new public footpath over NWL maintenance access track with link to Ringland FP1.

Route 10b (O-P)
Dedicated new public footpath creating link to Ringland FP1 & FP2. Unbound surface 'Trodd' to NCC specification.

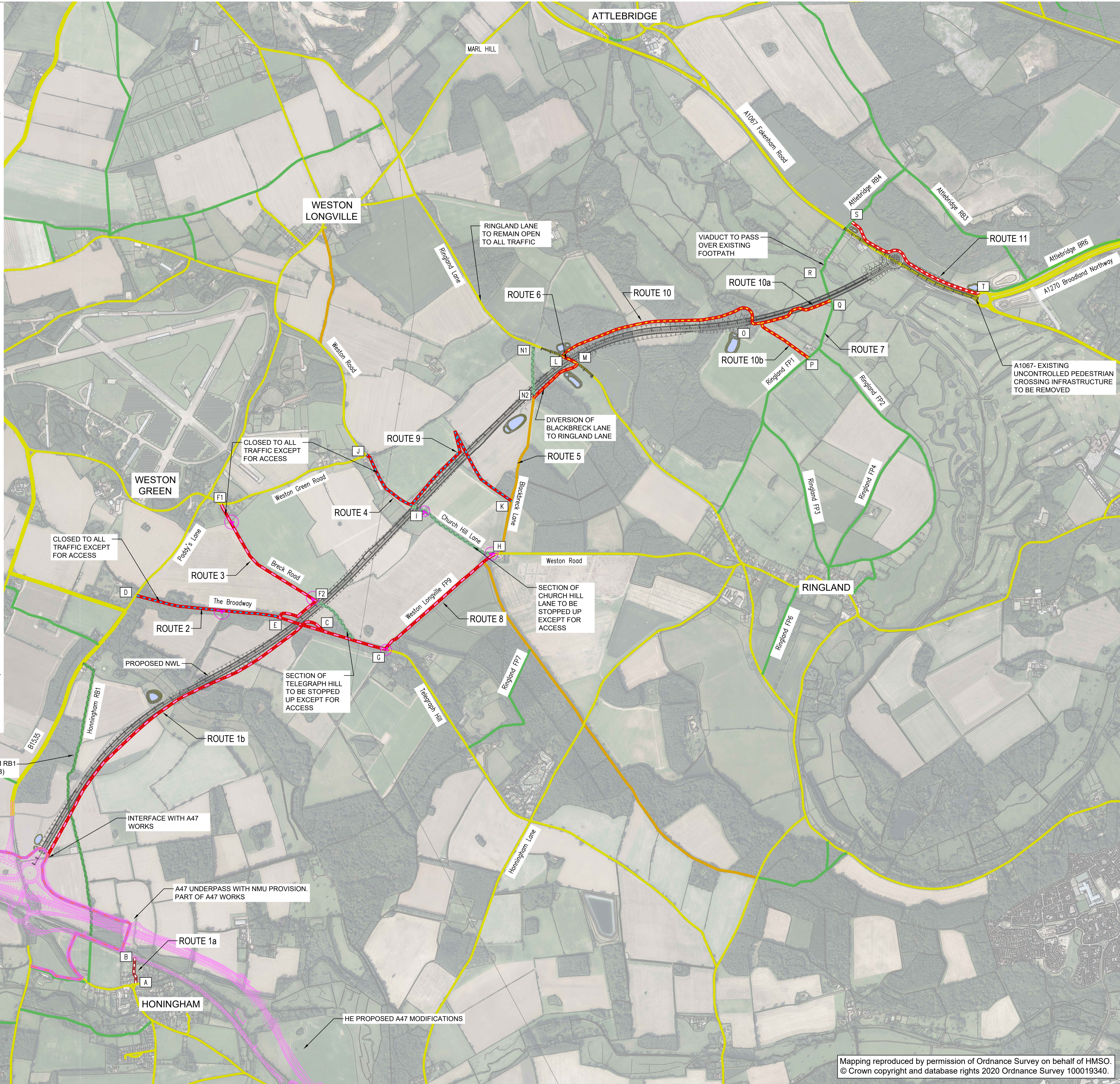
Route 11 (S-T)
Provision of a new shared pedestrian-cycleway to north side of A1067 Fakenham Road, creating an off-highway link alongside the new dualled A1067.

SECTION OF EXISTING HONINGHAM RB1 TO BE DIVERTED EAST OF NWL (A-B)

DECEMBER 2020 HIGHWAYS ENGLAND A47 NORTH TUDDENHAM TO EASTON DUALLING EMERGING SCHEME PROPOSALS

A47 UNDERPASS WITH NMU PROVISION. PART OF A47 WORKS

THE PROPOSED A47 MODIFICATIONS



Key

Existing

- Public highway
- Unsurfaced highway
- Public Right of Way

Proposed

- Proposed Restricted Byway / Existing Highway with prohibition of motor vehicles
- Localised diversion
- Proposed Bridleway / Existing Highway with prohibition of motor vehicles and carriages
- Footpath
- Shared pedestrian / cycleway
- Right of Way to be Permanently Stopped up

Turning Head or Gate

- General Notes**
- This drawing is confined to presenting the Non-Motorised User (NMU) strategy and modifications to the Public Rights of Way network. It outlines design intent for the proposed scheme as a reference design and should be read in conjunction with other associated drawings, relevant reports, specification, design requirements and supporting information provided.
 - The drawing shall only be used for the intended purpose it has been issued for and is not for setting out, or construction.
 - Any discrepancies and/or ambiguities found in this drawing, or between information contained within and that provided elsewhere, should be reported to the Project Manager for clarification.
 - All linear dimensions shown on plan are in metres unless otherwise indicated, and measurements must not be scaled from the drawing.
 - All spot elevations and contour levels where shown are in metres above Ordnance Datum (mAOD) unless otherwise indicated.
 - The topographical survey used as basis for the reference design scheme layouts is related to the Ordnance survey grid. The Contractor's detailed designs are to be developed on a survey transformed to a DMRB IAN 99/07 grid, and design features currently shown will need to be repositioned/scaled as appropriate.
 - Refer to surfacing plans NCC41793-03-C-18-700-0001 - 0015 for further information.
- Series XXX General Arrangement**
- Refer to Volume 3 Part M For Non-Motorised User Strategy.
 - This drawing indicatively outlines scope and extent of proposed works as a composite plan, although some details are omitted for clarity.
 - For geometric details of proposed highway, refer to relevant Road Plan and Profile drawings.
 - For proposed Pavement layout and details, refer to the pavement drawings.
 - For extents and details of proposed Signs, refer to Wayfinding Strategy drawings.

POB	HG	PCik	PCu	03/02/2021
P05	HG	PCik	PCu	26/01/2021
P04	HG	PCik	PCu	22/01/2021
P03	HG	PCik	PCu	29/05/2020
P02	SL	PCik	PCu	15/05/2020
P01	SL	PCik	PCu	21/04/2020

REVISION	DRAWN	CHECKED	APPROVED	DATE
DESCRIPTION				



PROJECT TITLE
NORWICH WESTERN LINK

DRAWING TITLE
NON-MOTORISED USER STRATEGY
GENERAL ARRANGEMENT LAYOUT

S2 - FOR INFORMATION

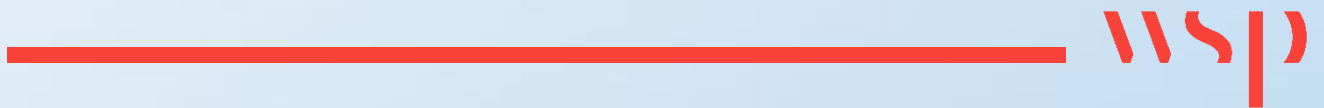
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DRAWING NUMBER
NCC41793-03-M-0001

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Appendix F

ORSTED HORNSEA 3 PROJECT CABLE ROUTING PLANS



Hornsea Project Three Offshore Wind Farm

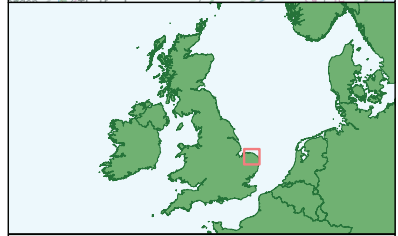
Volume 4 Annex 3.5
Onshore Crossing Schedule
Sheet 19 of 35

Volume 4 Annex 3.5

Hornsea Project Three

- Order Limits
- District Authority
- 123** Crossing ID
- Infrastructure at crossing**
- Roads
- Public Right of Way
- Hedgerow
- Watercourse
- Watercourse Boundary
- Cable
- Pipeline
- Ancient Woodland
- HDD Category**
- Horizontal Directional Drilling
- Horizontal Directional Drilling with haul road

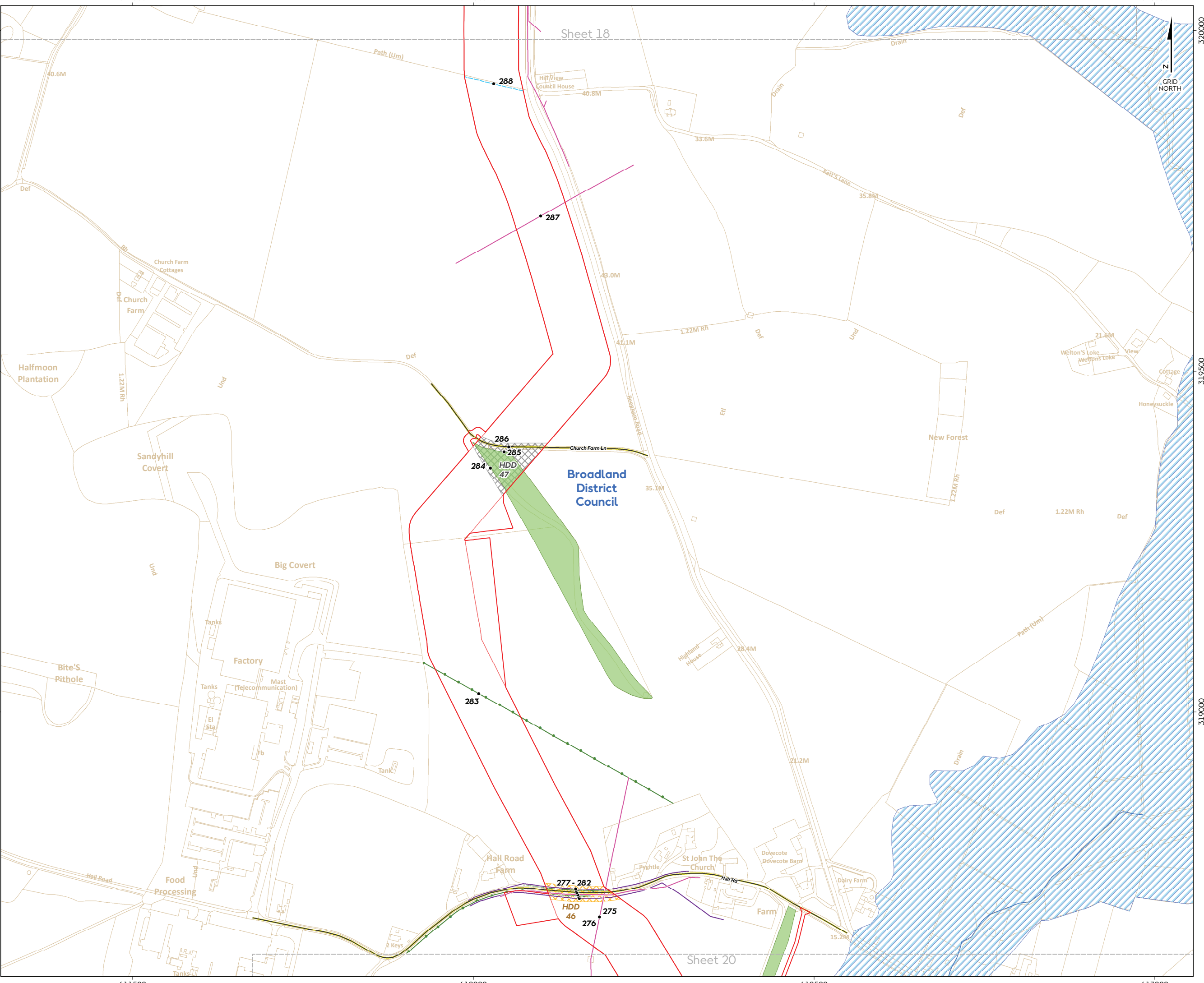
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Scale @ A1: 1:2500

REV	REMARK	DATE
00	First issue	May 2016
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Hornsea Project Three Offshore Wind Farm
Application Document Number: Volume 4 Annex 3.5
Document no: H0W03APP19
Created by: NATHO
Checked by: ANCUY
Approved by: STLIV



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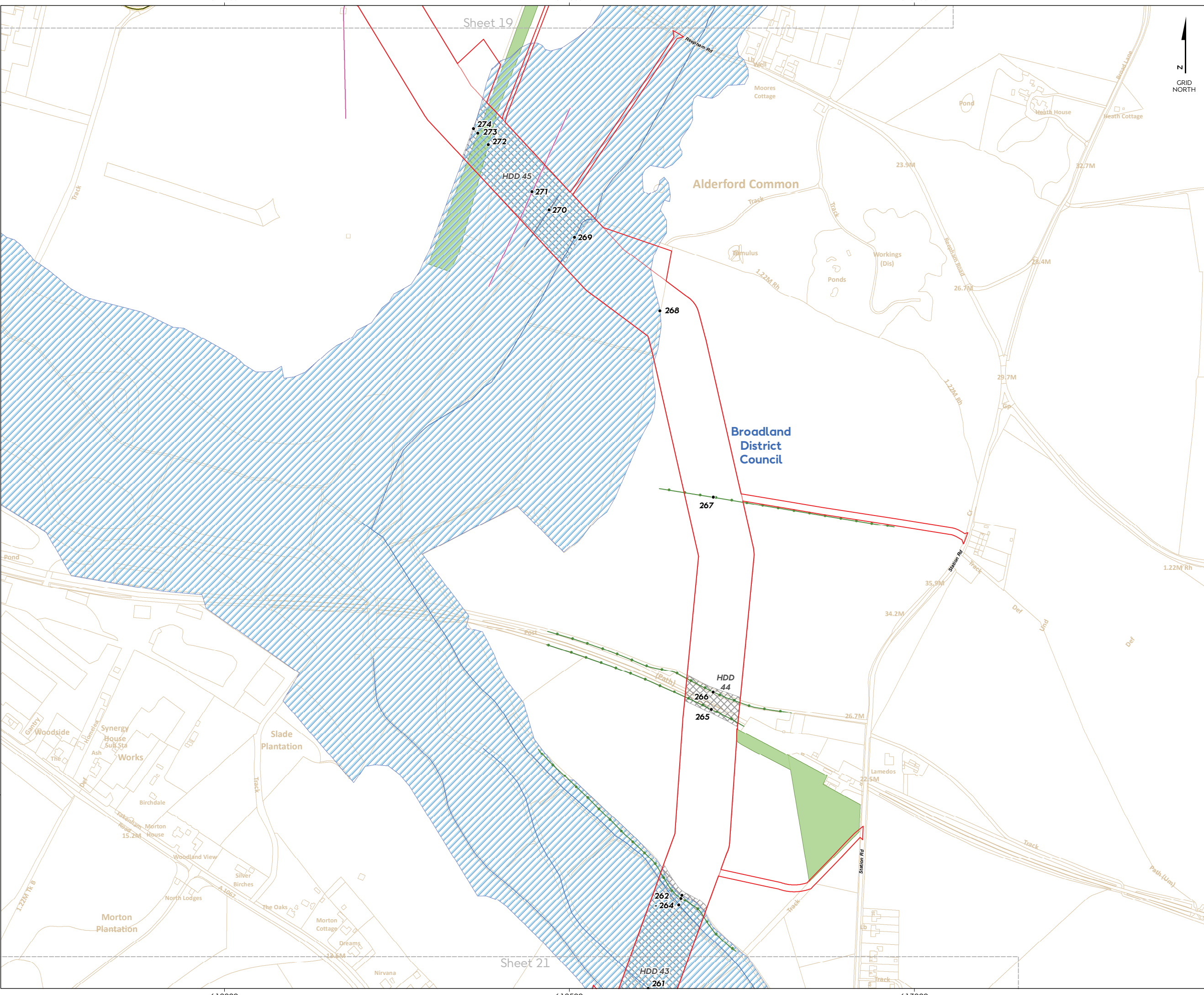
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Sheet 18

Sheet 20





Hornsea Project Three Offshore Wind Farm

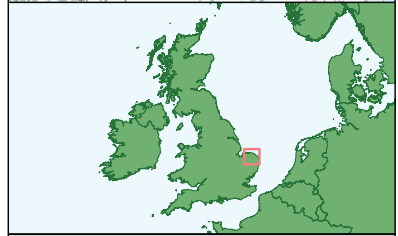
Volume 4 Annex 3.5 Onshore Crossing Schedule

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Volume 4 Annex 3.5

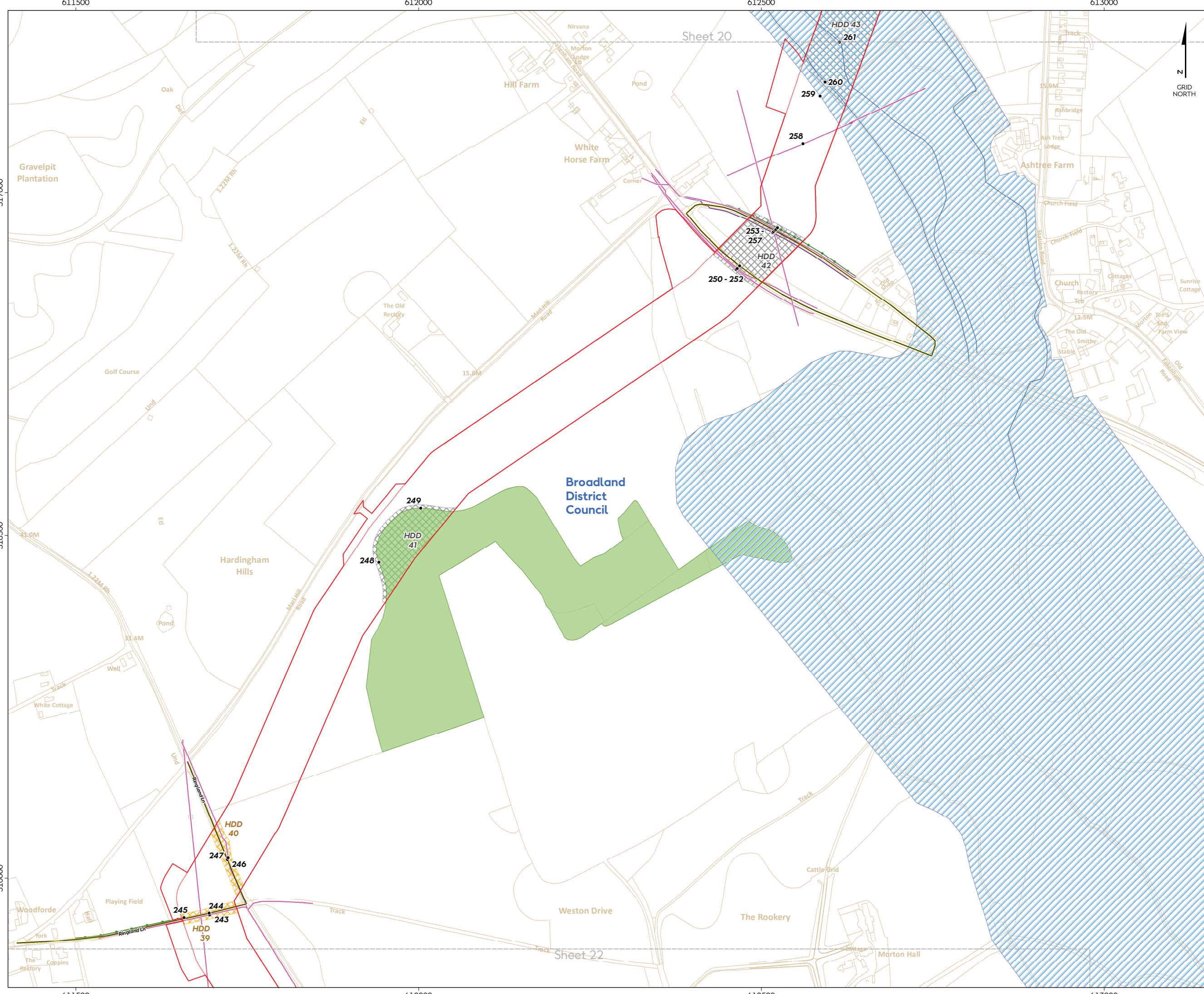
- Hornsea Project Three**
- Order Limits
 - District Authority
 - 123** Crossing ID
- Infrastructure at crossing point**
- Roads
 - Hedgerow
 - Watercourse
 - Watercourse Boundary
 - Cable
 - Ancient Woodland
- HDD Category Description**
- Horizontal Directional Drilling

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Hornsea Project Three Offshore Wind Farm

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Volume 4 Annex 3.5

- Hornsea Project Three**
- Order Limits
 - District Authority
 - 123** Crossing ID
 - Infrastructure at crossing point**
 - Roads
 - Hedgerow
 - Watercourse
 - Watercourse Boundary
 - Cable
 - Pipeline
 - Ancient Woodland

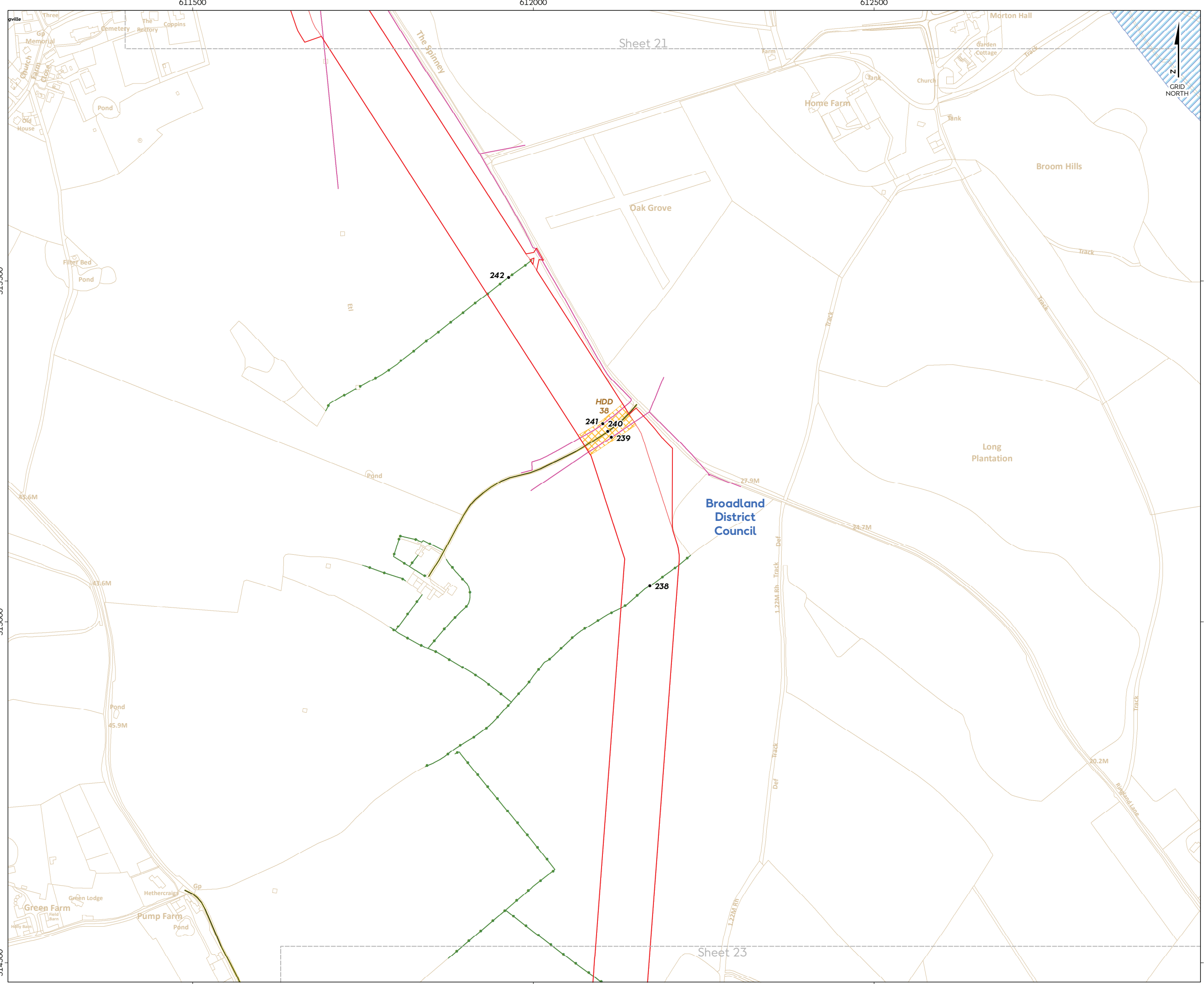
- HDD Category Description**
- Horizontal Directional Drilling
 - Horizontal Directional Drilling with haul road over

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Hornsea Project Three Offshore Wind Farm

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- Hornsea Project Three**
- Order Limits
 - District Authority
 - 123** Crossing ID
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- Roads
 - Hedgerow
 - Watercourse Boundary
 - Cable
- HDD Category Description**
- Horizontal Directional Drilling with haul road over

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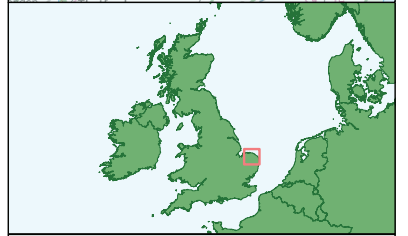
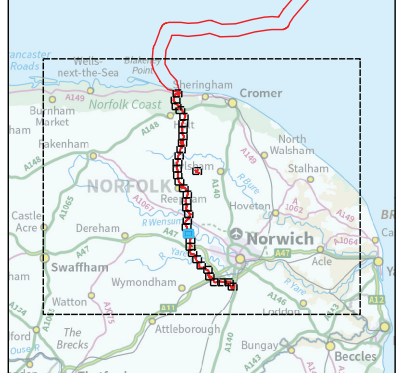
Hornsea Project Three Offshore Wind Farm

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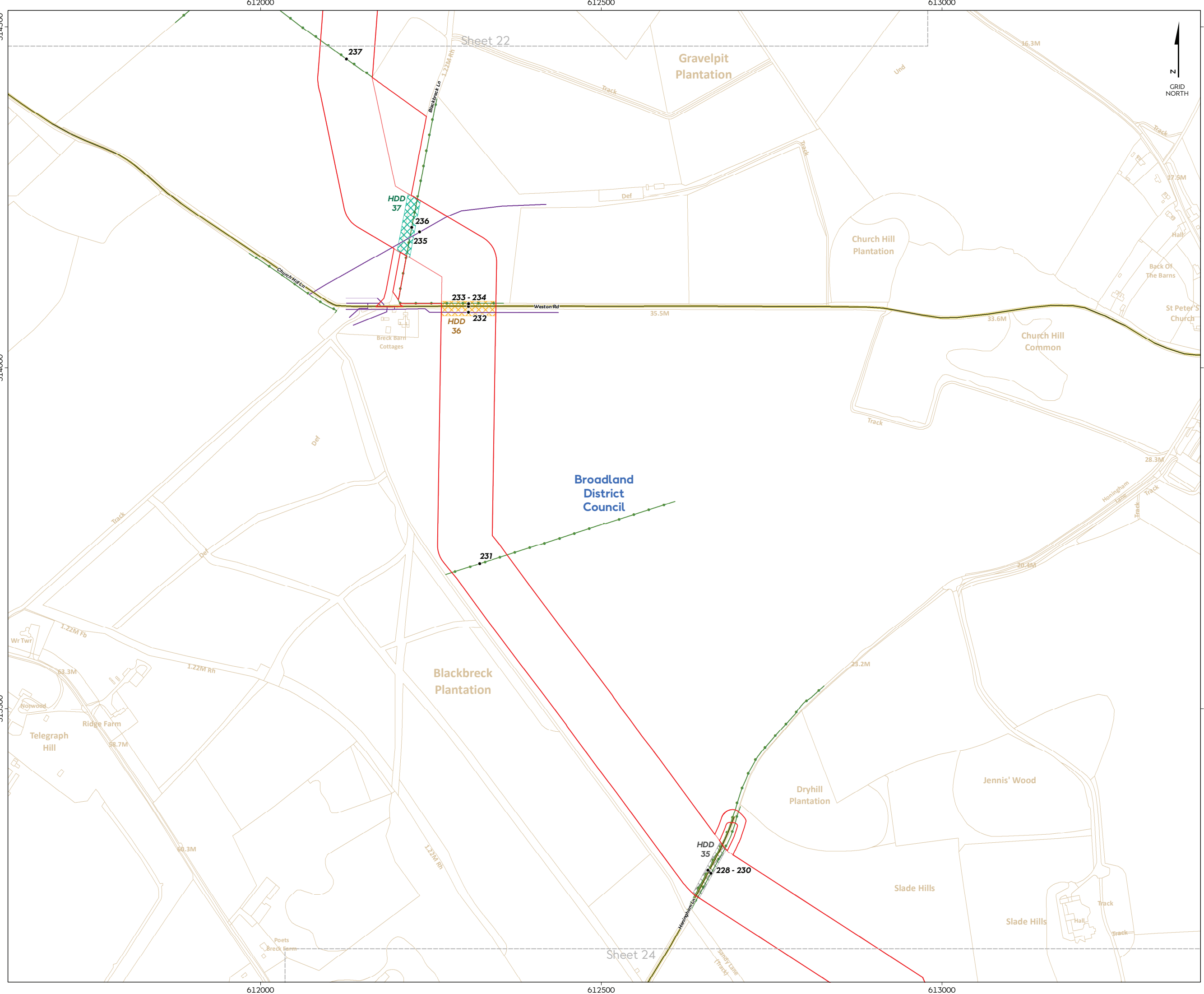
- Hornsea Project Three**
- Order Limits
 - District Authority
 - 123** Crossing ID
 - Infrastructure at crossing point**
 - Roads
 - Hedgerow
 - Pipeline
 - HDD Category Description**
 - Horizontal Directional Drilling
 - Horizontal Directional Drilling with haul road over
 - Horizontal Directional Drilling with haul road over or Open Cut

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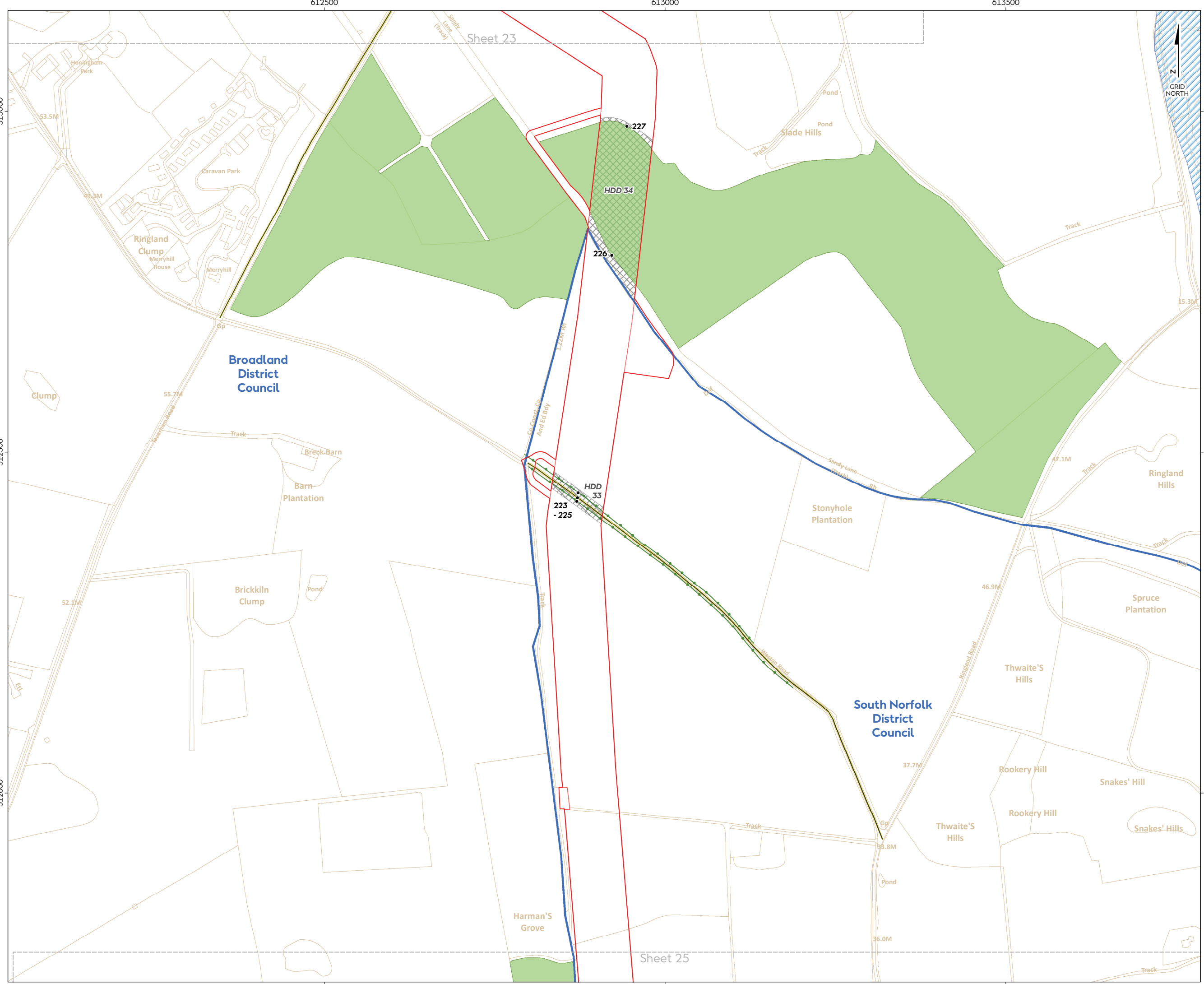


Sheet 24

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GRID NORTH



Hornsea Project Three Offshore Wind Farm

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- HDD Category Description**
- Horizontal Directional Drilling

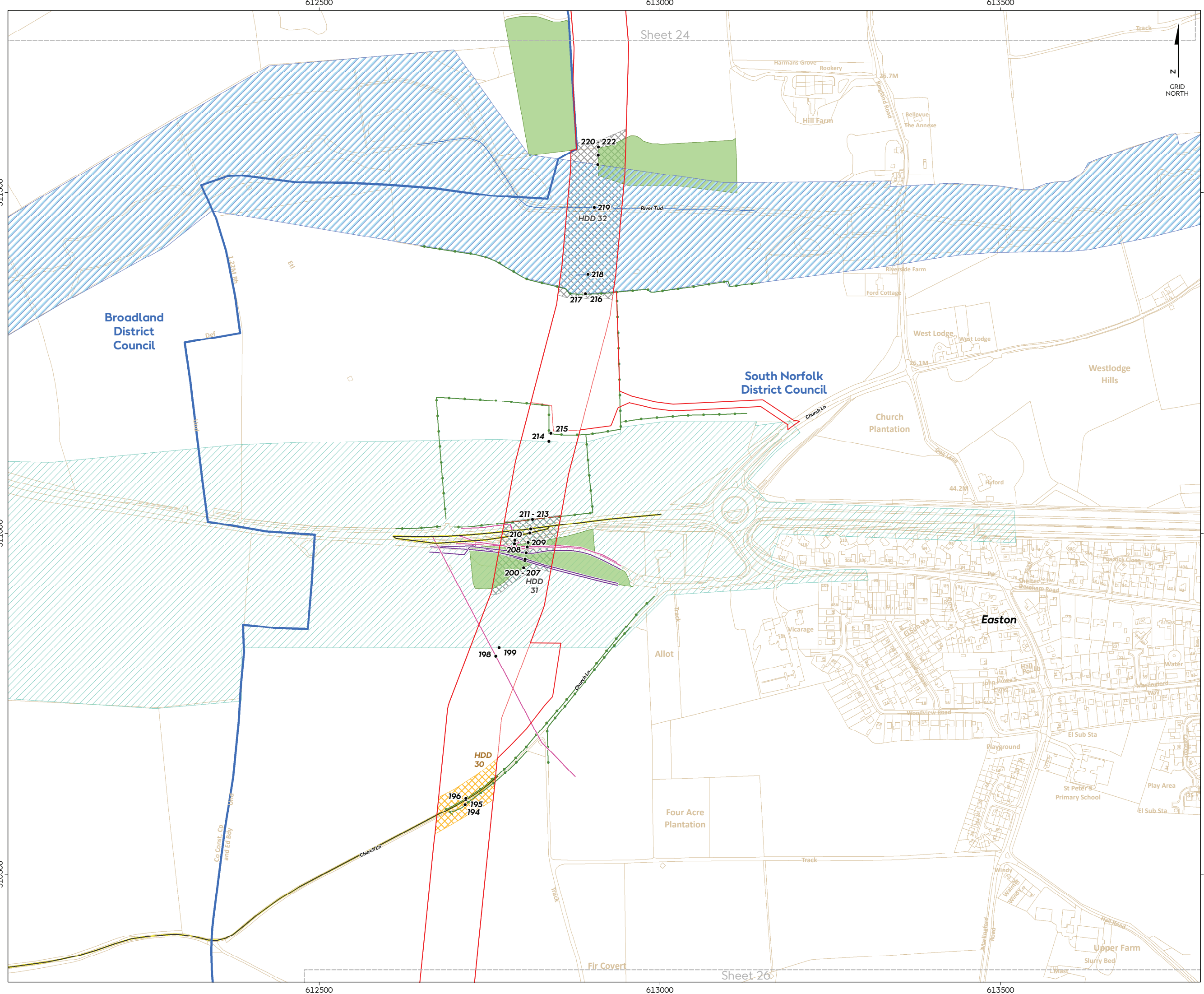
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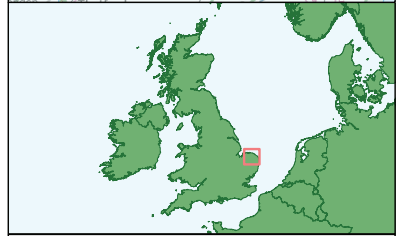
Hornsea Project Three Offshore Wind Farm

Volume 4 Annex 3.5 Onshore Crossing Schedule

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- Volume 4 Annex 3.5
- Hornsea Project Three**
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 - Watercourse
 - Watercourse Boundary
 - Cable
 - Pipeline
 - Ancient Woodland
 - National Highways A47
- HDD Category Description**
- Horizontal Directional Drilling
 - Horizontal Directional Drilling with haul road over

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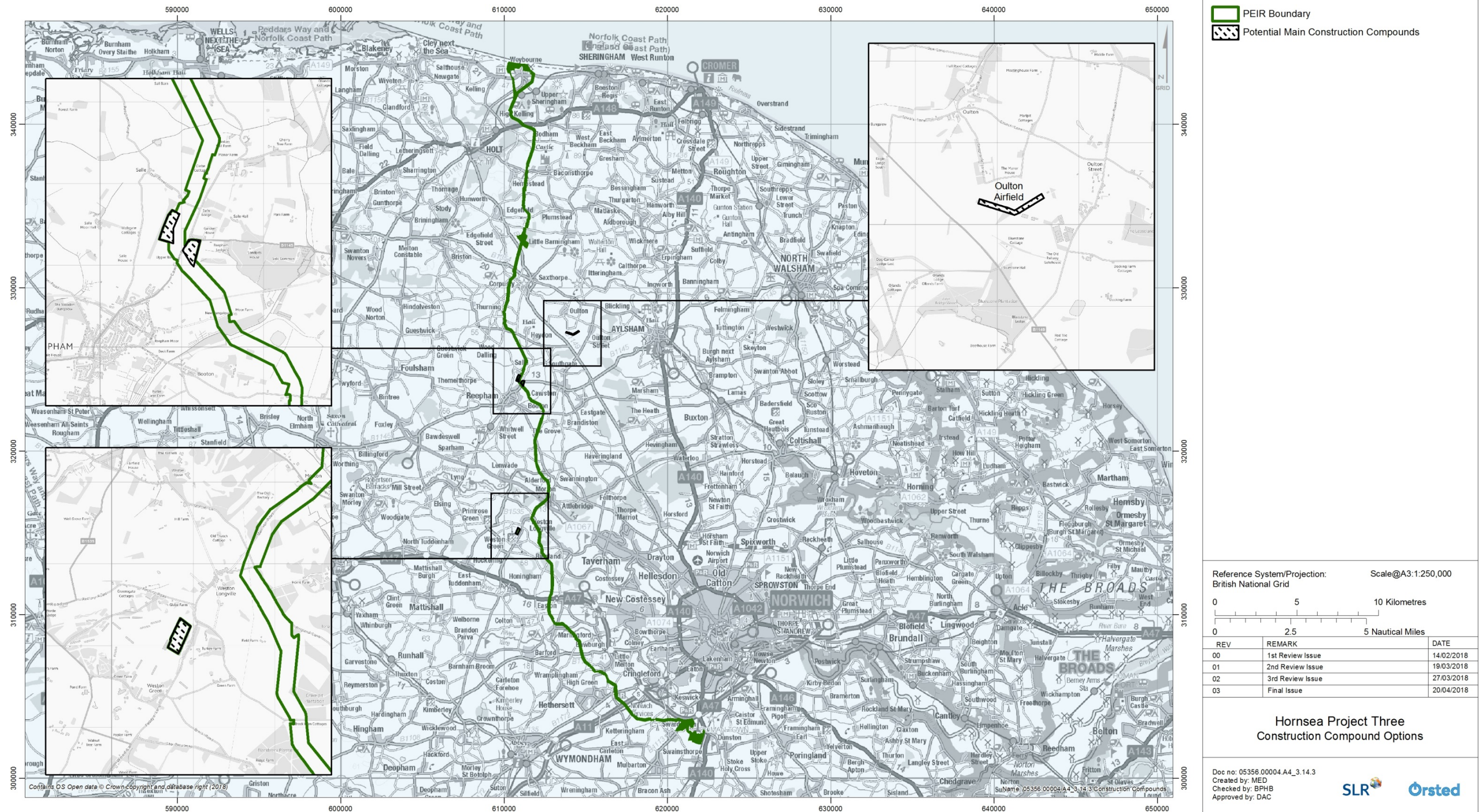
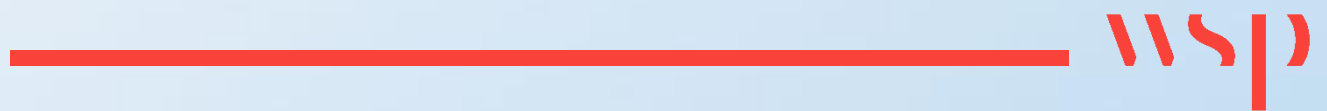


Figure 3.21 Construction Compound Options.

Appendix G

WCHAR STRATEGY PLAN





62-64 Hills Road
Cambridge
CB2 1LA

wsp.com



62-64 Hills Road
Cambridge
CB2 1LA

wsp.com

PUBLIC